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ABSTRACT

This is a compilation of data on youth employment, educational services, and incentives which impact on unemployment of youth and generate social costs beyond the costs of unemployment benefits and waste in education. Each of the report's seven sections presents statistical information that can be used to evaluate current practices in industrialized nations and suggests the potential success of new policies. Following an introductory section and a discussion of comparisons among intercountry data, the first section presents the dimension of youth unemployment in selected industrialized nations and puts it in the context of national population and labor force statistics. Section 2 identifies the characteristics of employment available to youths. The third section presents data on education for young people in various countries. Section 4 provides data on some of the educational changes made to reduce the costs of expanding educational offerings and to accommodate a better transition from school to work. Data are presented in the fifth section on some of the indexes of educational and job equality. The final two sections give information on disincentives to the hiring of youths and social costs related to education and youth unemployment. (LRA)

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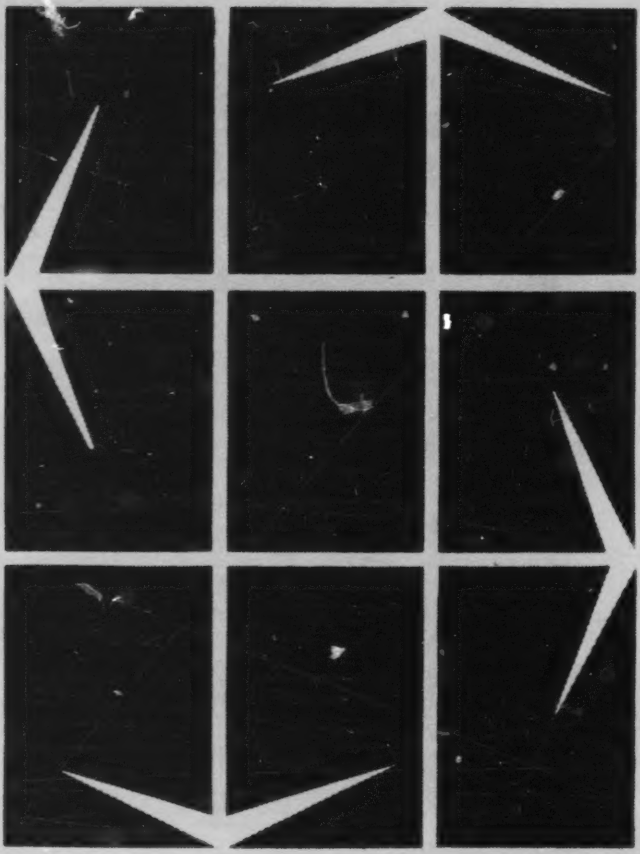

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INDICATORS OF YOUTH UNEMPLOYMENT AND EDUCATION IN INDUSTRIALIZED NATIONS

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Education Statistics

CE 023 270

U.S. DEPARTMENT OF HEALTH,
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NATIONAL INSTITUTE OF
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NATIONAL CENTER FOR EDUCATION STATISTICS

"The purpose of the Center shall be to collect and disseminate statistics and other data related to education in the United States and in other nations. The Center shall . . . collect, collate, and, from time to time, report full and complete statistics on the conditions of education in the United States; conduct and publish reports on specialized analyses of the meaning and significance of such statistics; . . . and review and report on education activities in foreign countries."-Section 406(b) of the General Education Provisions Act, as amended (20 U.S.C. 1221e-1).

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FOREWORD

In carrying out its statutory responsibilities for an international statistics program, the National Center for Education Statistics has sought to identify major policy concerns within the United States which could be illuminated by the experience abroad. In some instances, other nations have confronted problems similar to those which are urgent now in the United States and have, as a consequence, accumulated information that can contribute indepth to the analyses of issues here at home. Youth unemployment and education's role and responsibilities represent one such policy area.

The present report, Indicators of Youth Unemployment and Education in Industrialized Nations, represents a trial effort to compile data on youth unemployment, educational services, and incentives which impact on unemployment of youth and generate social costs beyond the costs of unemployment benefits and "wastages" in education. In making this compilation, data from international organizations were drawn upon, supplemented by statistics from the Bureau of Labor Statistics, the National Center for Education Statistics and other agencies. Direct nation by nation inquiries were not within the scope of the effort. As indicated, the comparability of the data depends substantially on the extent to which the international agencies undertook the complex task of assuring uniform reporting and standard definitions (or adjusting for national differences). Where the United States agencies had made special analyses of intercountry comparisons to improve the comparability, the statistics reported are from those special studies.

The report seeks to identify major issues on youth unemployment and education as a basis for identifying statistical needs. The issue formulation was completed in 1977 prior to the development of the Administration's youth unemployment program with its main reliance on public sector jobs. The report also presents in the form of "indicators" much statistical data. By comparison of the issues raised and data compiled the question of new statistical requirements is identified. The main emphasis necessarily will be toward formulating these additional data requirements in terms of the priorities for policy purposes. Data shown in some instances were those developed by the nations for the OECD High Level Conference on Youth Unemployment convened in Paris in December 1977.

Each of the indicators was reviewed in terms of the definition of the indicator, source of the material or statistics, dates to which the data refer, frequency of reporting, nations for which the data are shown, and the relationship to similar data available. In each instance a sample of the data was displayed.

Widespread interest in the trial compilation suggested that the material be reproduced for distribution to provide a basis for subsequent discussion, review, and later revision.

Marie D. Eldridge
Administrator, National Center
for Education Statistics

ACKNOWLEDGMENTS

This trial indicator volume could not have been prepared without the help of the staff of the Organization for Economic Cooperation and Development (OECD). It draws heavily on the published and unpublished materials from that agency. Hywel Jones of the European Economic Community gave us not only encouragement but contributed more recent statistics than available in published sources.

Officials of the National Center for Education Statistics greatly aided us in this work by providing information and facilitating the entry to other agencies of the federal government and to the OECD. Logan C. Osterndorf, project officer, was most supportive in all phases of development of the volume. Absalom Simms, Marjorie O. Chandler and Robert D. North reviewed the document and made useful comments. Of special note is the extent of collaboration of the U.S. Department of Labor. Officials of that Department provided much advice and statistics that we otherwise could not have obtained. Most importantly they guided us through the labyrinth of unemployment data for purposes of international comparisons. A special debt is owed to James P. Metcalf, Director, OECD Affairs, Department of Labor; Burman Skrable, Employment Training Administration; and Constance Sorrentino and Joanna Moy, Bureau of Labor Statistics.

Professor Stanley Nollen wrote the material on Intercountry Data, and critically reviewed the tabular information. His help in recasting the information greatly improved the accuracy.

The initial staff work of compiling intercountry data was carried out by Robin Boger. She assembled much material and did the first cut at tabular presentation. Professor Joseph Tryon assembled some of the material in section six aided by graduate student Paul Smoke. Kitty Conlan, Roberto de Magalhaes, Lisa Hoffman, Jan Houle, Lynn Norman, and Paul Smoke helped to compile data and prepare the tables. The tedious tasks of checking and rechecking fell upon them.

Alva Wood, and her precision and patience in typing text, charts, and tables through what at times appeared to be endless revisions of this document, made it possible to complete this indicator volume.

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INTRODUCTION

Nations of the developed world increasingly have come to recognize the unemployment of youth as a serious economic and social problem. The present report is intended to provide some background to aid in understanding the problem of youth unemployment. Statistics are presented that describe (a) past trends and current developments in education, in the workforce and in the economy generally that may have contributed to the current unemployment and (b) some policies that bear on the problem of youth unemployment. The emphasis is on statistical information that can be used to evaluate current practices and suggest the potential success of new policies. Needs for new statistics are identified.

The scope of the present inquiry did not permit new data to be collected. Rather, existing information assembled by international organizations, including OECD, EEC, ILO, UN and UNESCO, is drawn upon. Existing published materials were updated with unpublished data from these international organizations in many cases. In addition, national governments provided published and unpublished data in some cases.

Differences in definition of employment, unemployment, secondary and higher education enrollments and graduates--to mention a few of the basic data items--weaken the meaning of comparisons among countries unless steps are taken to gain comparability. International agency data are used because these agencies have sought to provide some comparability. An extensive set of inquiries on wage costs and incentives to many European officials and scholars produced some national data that are used. These data are separately identified.

Compilation of the indicator volume was undertaken to broaden the data base for new policy formulation. While youth unemployment has been a long-standing problem in the United States, nations of Western Europe have recently been experiencing this youth problem. The rate of unemployment in Europe is less than it is in the United States, although in both the United States and Western Europe, youth unemployment represents a sizable share of total national unemployment.

Simplistic solutions to youth unemployment problems were advanced in past decades. Young persons with high school graduation and with postsecondary education had less unemployment and higher earnings than those who were school dropouts. Accordingly, so went earlier doctrines, the more the education the less the unemployment.

Educational opportunities were extended to more young persons in the population and earlier barriers were reduced to give greater access to those from lower socioeconomic classes. This social reform of education, while considerable, did not go very far. Assessments of higher education enrollments by social classes still show the limited progress.

Although more education was offered and for longer periods of time to more persons and curriculum and structural reforms were slowly made, unemployment rates among young graduates did not decline. Indeed, there was an increase in unemployment. Causes that originate in the educational system are not altogether plain. The education received by graduates may not have been suitable to the job tasks that needed to be performed. Vocational guidance may have been deficient or the basic training received may indeed have become obsolete even before those going through the education programs completed their studies.

As high school graduation became more universal, screening of job applicants by employers in terms of such graduation was no longer feasible. The advantage of the diploma itself was lost. For the college graduate, the situation in the job market, in some instances, was little better. Liberal arts education for many middle or lower income class students did not equip them for any occupation or specialized task. Some graduates obtained qualifications, but in fields in which jobs were in short supply, for example, school teaching. Some graduates were in geographic areas where the market for the knowledge and skills they acquired was particularly unfavorable.

The ever accelerating pace of advances in scientific knowledge indeed contributed to the need for continuing education for those already with advanced degrees. This accelerated pace also highlighted the lag in the response of the educational establishment to curriculum and institutional change that would make education more compatible with the requirements of scientific and technological advance. At the same time, given the pressures of mounting demand for education, it encouraged use of methods of providing education that would be less costly than the university curriculum. Among the methods used to lower the cost of meeting educational demand were short-cycle education and technical institutes. In the United States, the community and two-year college movement took hold. A large share of all increases in enrollments in higher education in the United States was in the community and two-year college. At the same time, proposals for recurrent education gained followers. Such recurrent education offered a way for periodic upgrading of knowledge and skill with less wastage and obsolescence.

What do the existing data suggest as the factors underlying the difference in youth unemployment experience? Is there less cost disincentive for employers to hire youth in Europe? Are wage payments for youth lower to reflect the lower productivity of learners on-the-job? What are the relative costs of fringe benefits and compliance with government protective legislation? How has the expansion of educational opportunities in Europe affected the current unemployment situation? What special measures have been taken in the schools to bridge the gap between school and work?

Furthermore, is the concentration of unemployment among youth an important ingredient in design of employment and training policies, treating youth unemployment as a separate phenomenon from overall unemployment? Does this concentration facilitate specific solutions directed at youth? How is the pertinent question of competition for jobs between adults and youths met? A number of policies have been adopted in the past months by nations of the developed world to check continuing youth unemployment. Differences in the policies among the nations may help suggest other approaches to deal with youth unemployment. They may identify measures that have been ineffective or even have worked perversely.

The effort to marshal the facts hopefully will shed light on new directions for the United States that can capture the profit from the successes and avoid the pitfalls of other national experience. An initial question to be asked is what statistical criteria are available to measure progress toward the policy objectives being pursued? A set of criteria that are directly applicable would include:

- the rate of youth unemployment by age, for those at school and those not at school
- youth unemployment by kind of education--vocational, general, apprenticeship
- youth unemployment as a ratio of adult unemployment, by years of schooling and current school status
- youth job turnover rates within a 12 month period
- length of time looking for work between jobs
- relative average earnings by past unemployment experience by age, sex and years of education
- average earnings at age 25 of those with substantial past unemployment experience and those with little or no employment background.

This list is hardly exhaustive. Other indicators of success or failure of particular measures can be usefully applied to understand whether the policies adopted by nations are effective.

Diagnosis of the Problem

The quest for an understanding of what policies reach their goals or make substantial beginnings toward those goals assumes that there is indeed an important problem in youth unemployment that requires and will respond to special treatment.

To begin with, is youth unemployment a cyclical problem, or are there structural impediments that indicate that anticyclical policies alone--fiscal and monetary--will not relieve the difficulties? If unemployment in the economy is reduced, will it correct youth unemployment? To understand the size of youth unemployment in the context of the health of the economy generally requires statistical measurements that relate youth unemployment, by level of educational investment, to business conditions.

Much of the youth unemployment in Europe was triggered initially by the recession. Its continuance beyond the recession points, however, to structural rather than cyclical difficulties, suggesting the emergence there of a problem that has been known in the United States for some years. In the United States, youth unemployment today reaches a level of 40 percent or more for black youth in central cities and averages 7.8 percent for all young persons (in 1976). The rate has been double or triple that of adults for almost three decades. The actual rate has moved up and down with the level of unemployment. Today's overall high youth rate reflects the high nationwide unemployment number.

Still an additional question underlying diagnosis is:

Is the underlying phenomenon a matter of vital statistics, that is will time take care of the special problem of youth unemployment as the bulge in numbers of the population resulting from the extraordinary number of births following World War II passes as youths grow older? While the timetable differs among nations, each has its own post-World War II baby boom and each its large supply of new workers entering the workforce in consequence of that baby boom years earlier.

At present, the numbers of new job entrants are still being inflated by the high birth years. In the United States within a decade or less, the pressures on workforce supply will abate. Each year the added number of youths is smaller. Peak birth rates were reported in 1948. This would suggest that 1968 was the peak for young persons to enter the labor force. In Europe, high birth rates and subsequent high youth entrance into the labor force come later.

As the numbers of young persons entering the workforce have set new highs over the past decade, these new entrants have found it hard to find and retain employment. And many who have found satisfactory entry-level jobs have found it hard to advance.

The demand for young workers is influenced by both long-term trends and current circumstances. The past decades have witnessed marked changes in the occupational and industrial structure of the labor force, changes that have left the workforce less geared to self-employment and more dependent on work for others, especially on jobs with large employers. The type of employment in which youths in the past found jobs most easily has diminished in relative importance as has employment in which learning and work were directly linked. Indeed, today, jobs for young persons appear to have less educational content than most jobs for older workers.

Costs of hiring young people and the mismatch of costs and productivity may be an important cause of youth unemployment. Social insurance contributions that rise with high risks of unemployment or workmen's compensation make for a perverse incentive. Uniform minimum wages in the face of differences in worker productivity are a further disincentive. Costs of protective regulation are still an additional deterrent.

Credential requirements and licensure, originally designed to protect the public against incompetence in fields of health and safety, have increasingly come to be used by those in the occupations to restrict entry and reduce competition. Occupational licensure and the process of gaining credentials are now undergoing some scrutiny both in the Congress and the Administration. Certainly the various provisions impede youths' entry and reduce mobility both geographically and occupationally.

Greater job specialization, while intended to raise productivity, has made for a narrow scope and rigidity in jobs that impede learning by youths while at work, at the same time as incentives for productivity have been impaired by monotony.

Is the underlying structural problem attributable in some measure not to overall economic or workforce trends but to the slow response of the formal education system to the changing skill requirements in the economy? Has the growing societal demand for education loosened the earlier direct linkages between work and education and left a hiatus in its place?

Directions of Corrective Actions

Corrective action depends on the diagnoses of the problems and on the cost and effectiveness of adoption and implementation of solutions. Corrective policies will require coordinated action based on an understanding of labor force development, including the economies' operation, demographic trends, and of educational development.

Economic forces--If absolute levels of youth unemployment have a cyclical origin, the effective use of tools of fiscal and monetary policy would help reduce the rate. But the tradeoff between inflation and unemployment is a major policy impediment, both economically and politically. If food shortages and oil prices add to inflation, what stimuli can be injected into the economy to reduce unemployment without accelerating inflation?

Economic growth rates in the United States and in Europe have fallen. Projections, such as that by Chase Econometric Associates and Data Resources, Inc., place growth rates for the years ahead in the United States at an annual rate of no more than 5.5 percent. Bottlenecks to economic expansion due to shortages in a number of sectors, as well as anticipatory price rises, create a depressant on policies that could reduce unemployment. DRI estimates suggest that an average growth rate of only about 6 percent over the period 1977-80 would be sufficient to constrain further expansion because of the appearance of bottlenecks.

Indeed, the OECD nations have reduced their growth targets. The July 1977 Economic Outlook from the OECD states:

> The forecasts--based as usual on the assumption of no further policy changes--are that the expansion will weaken slightly to an annual rate of about 4 per cent in the first half of 1978. This would be well below the rate--for the fourth successive half-year--implied in the OECD medium-term strategy adopted by Ministers in June 1976....On balance, there would seem to be a considerable risk that the deceleration of inflation to mid-1978 will be less marked than is shown in the forecasts. Should this be the case, or if demand management policies are changed, the forecasts for real GNP and current external balances would need to be modified.

The combination of inflation and slow real economic growth means that fiscal approaches to dealing with unemployment of youth and of others in the workforce are clouded. Wage pushes, stimulated by increases in the cost of living, give inflation further momentum with wage rate rises at about 8 percent compared with price increases of 6 percent. While the difference of 2 percentage points could be explained by productivity increases, recent increases in productivity measured by output per worker have risen only 0.4 percent. Thus, wages are an additional factor in the forward push on the price level.

Labor force trends--Intervention in the labor market to reduce unemployment depends upon detailed analyses of market demand conditions as well as projected supplies. If social costs of employing youths resulting from governmental action (or union collective bargaining agreements) raise total labor costs beyond the productivity of youths, clearly employers are encouraged to hire older workers. To the extent that the various social costs are internalized in the firm and those costs plus wages exceed productivity, employers make adjustments in their use of labor and in the relative amounts of labor and capital applied in production.

The questions for policy are manifold.

Which of the social costs should be internalized so that there is a market response, even though it is unfavorable to those workers whose productivity and skill levels are low (such as the learner-beginner in the labor market)? Which of the social costs indeed bear unevenly on those who are young as against the adult worker? What actions, if any, based on these assessments should be taken by (a) subsidization of wages for youths, (b) tax credits or forgiveness of social insurance costs on behalf of youths and (c) other forms of tax credits or deductions for favorable employment actions? Are the actions to be restricted to the removal of those costs that work perversely to restrict the employment of youths or should special incentives for youth employment be provided?

Among the cost-impact proposals that have been adopted or proposed are these:

- lower minimum wages for youths
- lower apprenticeship pay for youths
- subsidization of employer training costs
- lower social insurance contributions for youths
- government assumption of workmen's compensation and unemployment benefit costs
- special tax credits or tax deductions for employers undertaking to hire youths
- direct pay subsidies for those employing youths
- direct government financing for youth jobs.

Confusion of equity and growth purposes hampers design of a job creation program, such as the U.S. Comprehensive Employment and Training Act (CETA). A program directed to the long-term unemployed and disadvantaged does not necessarily provide sustaining jobs. This is especially true since state and local governments which are charged with responsibilities for hiring under CETA require for most regular state and local services just the kind of skills and competence that long-term unemployed and disadvantaged do not have. Indicative of some of the problems involved is the following statement of purpose of the CETA summer job program for youths as published in a local press statement: It is "giving low income kids jobs and money...Most of the youths working plan on using summer wages for books and school clothes. If we can get them the kind of job that can give them training they can use (for future employment), that's second priority." First money payments and then future competence appear to be the priority order.

Productivity improvement demands attention. As a corrective for past job dilution, worker-participation, cut along patterns found in Yugoslavia or in some plants in Norway, is being urged along with life-long learning programs that match formal education with education at the work place.

A subsidiary question to be addressed by policy initiatives is whether unemployment among teenagers and young adults is or is not attributable largely to the spells of unemployment youths experience as they voluntarily change jobs and move in and out of the labor force between work and school. If the unfavorable unemployment ratios do in fact represent trial and search costs, the corrective action has to be addressed to reducing job turnover and to assuring that the skills available to youths, including skills of job search, contribute to lowering costs and enhancing productivity.

Educational developments--Education and work skills are a major component of youth unemployment policies. Three major United States reports on youths and schooling were issued in the early 1970's: Youth: Transition to Adulthood by the President's Science Advisory Committee, Education of Adolescents by a National Panel on High Schools and Adolescent Education, and Reform of Secondary Education by the National Commission on the Reform of Secondary Education.

A major concern of these reports is that many young persons are kept in school too long, isolated from productive work and ultimately discouraged and alienated. These reports generally advocate a change in the current pattern of concentration of youths in segregated educational environments by facilitating direct youth participation in work during part of the school year. They also urge changes in curriculum to enable students to function better in the real world of work.

Indeed, a large variety of changes in education and training are proposed. The many remedies may be grouped somewhat as follows:

(1) Better occupational information: Introduction of career information at elementary and secondary grades; bringing of professional artists, musicians and so forth into the classroom; fuller use of parental and community resources for informing students about work and jobs.

(2) Job exchanges: Improved information sources and methods of dissemination of information about job vacancies, including job counseling and placement services in secondary schools; increased effectiveness of public employment offices in filling job vacancies and in coverage of job slots.

(3) Occupation training: School release for work programs; increases in number of apprenticeships and of places for entry job training in industry; improvements in vocational education; subsidies to industry for training.

(4) Changes in method or time of job entry: Various proposals are advanced to (a) lengthen the period of schooling as a way to reduce unemployment or (b) shorten the period of schooling as a way to cope with the costs to society of prolongation of the period of dependency and of erection

> of barriers to youth participation in the adult world. Among the measures proposed are more compulsory education; adoption of programs of youth public service; shortening of the number of high school years; farm jobs for youth; and so forth.

Educational institutions have taken on a larger role in job preparation and entry over the years as credentials have grown in importance but the tasks have been carried out poorly. How to improve the role of the schools in job entry is one issue to be faced by the governments in designing policies to reduce youth unemployment.

Proposals that reduce the time required to find a job and to prepare for successful performance on the job lower the economic costs and should encourage a larger volume of employment.

Costs of Youth Unemployment

The high costs of youth unemployment cannot be ignored in policy formulation. The nation's future is at stake. Deterioration of persons and of moral fiber is a consequence of unemployment and the discouragement that comes about because jobs cannot be found. Unemployment symbolizes rejection by society. For those whose views about society are already damaged by discrimination and poverty, unemployment adds to alienation.

Even for the more affluent young persons, the damaging effect of unemployment as a symbol of society's rejection is great. It colors their outlook at a time of great sensitivity and personal searching for self and meaning of self.

The immediate costs in response to society's rejection are large; the longer run costs are damaging to the very fabric of society. Unless the "problem" of youth unemployment is clearly defined and the objectives specified in broader social terms than simply jobs, the prescriptions are likely to be costly.

Data Requirements

For policy formulation, officials need to know what is happening to unemployment among young persons. Is it going up or down? How large a share of unemployment is represented by young persons? How long are the spells of unemployment for young persons? How does unemployment duration differ for youths from that in the other working age groups? What are the determinants of such youth unemployment?

They also need a better understanding of shifts in occupational and industrial composition, such as shifts in access of youths to employment and to job advance. How do these shifts affect the potential career ladder for those employed? Who hires young persons? Are there differences between Europe and the United States in career potential for young persons? What do such differences suggest about policy directions?

Have educational developments contributed to the current unemployment experience? Or have such developments eased the situation? What do the experiences of educational systems far less universal than that in the United States suggest about access of youths to jobs? What is indicated about opportunities for economic and social progress?

What modifications have been made in education to correct earlier deficiencies and bridge the gap between work and schooling? How many persons are affected? With what difference in access to employment or to job advances?

Policy officials concerned about the equity of policies pursued cannot neglect the uneven impact of education and workforce trends on youths. Has income been made more even by extension of educational opportunities? Are poorer young persons the chief beneficiaries? Has educational equality made for greater fairness in the earnings of men and women? And have regional differences in access to education been taken into account? What, if any, consequences are there for regional differences in youth unemployment? For differences between men and women and between social classes?

To understand the way in which the job market has developed along with extension and expansion of education, the financial incentives for employers need to be taken into account. Is there a cost differential for employers in the hiring of youths? Do the cost differentials reflect differences in productivity or do the costs work perversely to restrict youths' entry into jobs?

What are the policy modifications that would enhance the opportunities for youths? What has been tried, where and with what results? What are the true social costs? Have these all been considered in policy formulation and adoption?

These are the types of questions on which data are needed to help identify the size of the problem, its past trends and likely future development and to judge the effectiveness of optional programs.

In the pages that follow, some of the questions are addressed where data permit, by charts and tables that set forth the statistics mainly from an international perspective. Review of the statistics suggests the wide gaps in available data. Much hard information is lacking on the dimensions of the problem of youth unemployment and educational services and criteria that permit program assessments to be made.

INTERCOUNTRY DATA

Comparisons among intercountry data are difficult to make because of intercountry differences in the definitions of variables and in data collection methods. Full comparability can seldom be achieved. Even if intercountry data are comparable with respect to definitions and data collection methods, substantive conclusions about differences among countries in education and employment are difficult to make because of differences in social and economic structures.

In this report, data from international statistical compendia are used. This does not mean that comparability is achieved. However, the international organizations which collect and compile these data do, in some cases, achieve a degree of comparability superior to that obtainable by using strictly national sources. Because publication of these data often lag their collection by two to three years, the timeliness of this report was improved by obtaining some more recent unpublished data conforming to the format of the international compendia.

In this section, the problems of achieving comparability in intercountry data are sketched. Steps taken by international organizations to move toward comparability are described. Examples of differences in reported statistics due to differences in data definitions and data collection methods are offered. Classification systems, the meaning of terms and the definition of variables used in the data tables to follow are spelled out.

I. Population and Labor Force Statistics

A. Variable Definitions

Definitional problems in population and labor force statistics cause one country's reported figures to be high or low relative to those of another country. Labor force statistics pose the larger problem, particularly in determining who is in the labor force, who is employed, and who is unemployed. Among the specific definitional problems to be resolved are the treatment of unpaid family workers, migrants, workers suffering from illness, workers who have been laid off, self-employed workers, part-time workers, occasional workers and discouraged workers. In each of these cases, what conditions--what characteristics of individuals--determine their official labor force status? Different countries apply different definitions in their national statistics. Differences across countries in the prominence of each of these conditions seriously impair absolute comparison of intercountry data.

In this report, the chief sources of labor force data are the Organization for Economic Cooperation and Development (OECD) and the U.S. Bureau of Labor Statistics (BLS). Both agencies strive to achieve comparability of variable definitions in their assembly of intercountry data. Both agencies begin by using the definitions adopted by the International Labor Organization (ILO) at the Eighth International Conference of Labour Statisticians. Meeting in 1954, this conference approved definitions of employment, unemployment and the labor force which are widely acknowledged but by no means always observed. However, methods used by OECD and BLS to achieve comparability differ, as described below.

One way to attack the problem of definitional non-comparability is to assemble data from national sources using standard definitions which are uniform across countries. The OECD attempts to do this by sending the same questionnaire to all member government statistical offices. The questionnaire contains detailed definitions of all variables to which reported statistics are supposed to conform. Since responses to the questionnaire depend on data previously collected through national sources (original collection for the questionnaire is exceptional), conformance cannot always be achieved. If conformance is not possible, respondents are asked to explain in the questionnaire how their definition varies from the standard. Then OECD either (1) adjusts the non-conforming data to make it comparable with the standard definition (using supplementary information) or (2) publishes the non-conforming data as is. In either case, notes to OECD data tables indicate the status of the statistics, and those notations are also provided in the data tables in this report. Of course, as in all questionnaire surveys, errors may be made by respondents, and so the published statistics may in some instances be less comparable than imagined.

Standard definitions used by OECD are as follows:

Total population: All nationals present in or temporarily absent from the country and aliens permanently settled in the country. This includes national armed forces stationed abroad, merchant seamen at sea, diplomatic personnel located abroad, other civilian nationals temporarily abroad, civilian aliens resident in the country and displaced persons resident in the country. Those excluded are foreign armed forces stationed in the country, foreign diplomatic personnel located in the country and civilian aliens temporarily in the country.

Total labor force: Sum of the civilian labor force (as defined below) and the armed forces. The armed forces cover personnel from the metropolitan territory drawn from the total available labor force who were serving in the armed forces during the period under consideration, whether stationed in the metropolitan territory or elsewhere. The following are excluded from the armed forces:

(a) personnel drawn from areas outside the metropolitan territory of the country concerned;

(b) security forces, excepting forces such as mobile gendarmerie units and armed border patrols which receive training in military tactics, which are equipped like the military forces and are liable to be placed under military command; and

(c) reservists recalled for a period of training of less than one month.

Civilian labor force: All civilians who fulfill the requirements for inclusion among the employed or the unemployed, as defined below.

Unemployed: All persons above a specified age who, on a specified day, or for a specified week, were in the following categories:

(a) workers available for employment whose contract of employment had been terminated or temporarily suspended and who were without a job and seeking work for pay or profit;

(b) persons who were available for work (except for minor illness) during the specified period and were seeking work for pay or profit, who were never previously employed or whose most recent status was other than that of wage-earner or salaried employee (i.e., former employers, etc.), or who had ceased working;

(c) persons without a job and in the normal course of events immediately available for work, who had made arrangements to start a new job at a date subsequent to the specified period; and

(d) persons laid off temporarily or for an indefinite period without pay.

The following are not considered to be unemployed:

(a) persons intending to establish a business or a farm on their own account, but who have not yet arranged to do so and were not seeking paid employment; and

(b) unpaid family workers who had ceased working and were not seeking paid employment.

Persons in civilian employment: These include:

(a) all persons above a specified age in the following categories:

- at work: persons who were in work for pay or profit during a specified brief period, either one week or one day;
- with a job but not at work: persons who, having already worked in their present job, were temporarily absent during the specified period because of illness or injury, industrial dispute, holidays or other leave of absence, absenteeism or temporary disorganization of work due to reasons such as bad weather or technical breakdown;

(b) employers and persons working on their own account should be included among the persons in employment and be classified as "at work" or "not at work" on the same basis as other employed persons;

(c) unpaid family workers currently assisting in the operation of a business or farm are considered as employed if they worked for at least one-third of the normal working time during the specified period.

The following are not considered as persons in employment:

(a) workers who during the specified period were laid off temporarily for an indefinite period without pay;

(b) persons without jobs, businesses or farms who had arranged to start a new job, business or farm at a date subsequent to the period of reference; and

(c) unpaid members of the family who worked for less than one-third of the normal working time in a family business or on a family farm during the specified period.

Wage-earners and salaried employees: Persons who work for a public or private employer and receive remuneration in the form of wages, salary, commission, tips, piece-rates or payment in kind.

> Employers and persons working on their own account: Persons who operate their own economic enterprise or follow a profession or trade on their own account, whether they employ other persons or not.

Member countries are requested to give data relating to population either for the middle or the end of the year. For other items, a yearly average should be given if possible.

Demographic and labor force statistics for the United Nations are defined in the same way.

The definitions used in the European Economic Community Labor Force Survey are generally based on those drawn up by the ILO and the OECD. Certain discrepancies, however, may be noted, not only because the definitions recommended by the ILO and OECD cannot always be rigorously applied for technical reasons, but also because certain types of employment developed in the Community countries have required specific modifications. The basic purpose of Community processing is to obtain results comparable between countries. It should be recognized that these results do not always agree with data deriving directly from the surveys.

The U.S. Bureau of Labor Statistics (BLS) assembles its international data from national published data and then procures additional information to adjust the national data to conform to U.S. definitions and concepts.

The definitions used in the U.S. labor force survey agree with ILO and OECD definitions but are more specific. Exhibit 1, prepared by BLS, provides a brief synopsis of the major areas of differences between countries in their definitions of unemployment and the labor force. This table represents the current status of definitions in national statistics. Changes have been made over the years so that different entries in some areas would have been required in earlier years.

Definitions vary with respect to the treatment of persons temporarily laid off, unpaid family workers, military personnel, students and other groups. There are also differences in reference periods, age limits and criteria for seeking work.

The BLS makes adjustments for many, but not all, of these differences. Data are simply not available for adjustment purposes in some areas. Adjustments have not been made because of institutional differences in some other areas. For example, BLS makes adjustments to lower age limits only to the extent to conform to the age at which compulsory schooling normally ends in each country. Where adjustments have not been made, effects on comparability are believed to be minor in most cases.

Exhibit 1

Synopsis of Unemployment Statistics: Definitions Recommended by the International Labor Organization and Definitions Used by Selected Countries

Item	ILO definition	Australia	Canada
Source	Unspecified	Labor force survey	Labor force survey
Frequency	Unspecified	Quarterly	Monthly
Age limits	Unspecified	15 years and over	15 years and over
Reference period	1 day or 1 week	1 week	1 week
Reference period for jobseeking	1 day or 1 week	4 weeks	4 weeks
Whether included in labor force:			
Career military personnel	Unspecified	Excluded	Excluded
Unpaid family workers working less than 15 hours	Excluded if worked less than one-third of normal working time	Excluded	Included
Whether included in unemployed: 1/			
Persons on layoff	Included	Included 2/	Included 3/
Persons who have not actively sought work 4/	Excluded, but no test of workseeking	Excluded	Excluded
Temporarily ill jobseekers	Included	Included	Included
Students seeking work	Unspecified	Included	Included 5/
Persons waiting to report to a new job at a later date	Included	Included	Included
Jobseekers not currently available for work	Excluded, but no test of availability	Excluded	Excluded
Persons who did some work and also looked for work	Excluded	Excluded	Excluded
Special exclusions	--	--	--
Base for unemployment rate	Unspecified	Civilian labor force	Civilian labor force

Footnotes at end of table.

Exhibit 1. (Cont'd.)

Item	France		Germany	
Source	Employment office registrations	Labor force survey	Employment office registrations	Labor force survey
Frequency	Monthly	Annual	Monthly	Annual
Age limits	None	15 years and over	14 years and over	14 years and over
Reference period	1 day	1 week	1 day	1 week
Reference period for jobseeking	1 day	Unspecified 6/	1 day	Unspecified
Whether included in labor force:				
Career military personnel	--	Included	--	Included
Unpaid family workers working less than 15 hours	--	Included	--	Included
Whether included in unemployed: 1/				
Persons on layoff	Excluded	Excluded	Excluded	Excluded
Persons who have not actively sought work 4/	Included	Included	Included	Included
Temporarily ill jobseekers	Included	Included	Excluded	Included
Students seeking work	Excluded	Included	Included	Included
Persons waiting to report to a new job at a later date	Excluded	Excluded	Excluded	Excluded
Jobseekers not currently available for work	Excluded	Included	Excluded	Included
Persons who did some work and also looked for work	Included 7/	Included 8/	Included 7/	Excluded
Special exclusions	Persons over 60 years old and receiving "income guarantee" payments; persons seeking part-time work	--	Construction workers receiving "bad weather money" between November 1 and March 31	--
Base for unemployment rate	None calculated	Total labor force	Wage and salary labor force	Total labor force

Footnotes at end of table.

Exhibit 1 (Cont'd.)

Item	Great Britain		Italy	Japan
Source	Employment office registrations	Labor force survey	Labor force survey	Labor force survey
Frequency	Monthly	Annual [9]	Quarterly	Monthly
Age limits	16 years and over	16 years and over	14 years and over	15 years and over
Reference period	1 day	1 week	1 week	1 week
Reference period for jobseeking	1 day	Unspecified [10]	Unspecified	1 week
Whether included in labor force:				
Career military personnel	--	Excluded	Included	Included
Unpaid family workers working less than 15 hours	--	Included	Included	Included
Whether included in unemployed: [1]				
Persons on layoff	Excluded	Excluded	Excluded	Excluded
Persons who have not actively sought work [4]	Included	Included	Included	Excluded, but no test of workseeking
Temporarily ill jobseekers	Excluded	Included	Included	-- [12]
Students seeking work	Excluded	-- [11]	Included	Included
Persons waiting to report to a new job at a later date	Excluded	Included	Included	Excluded
Jobseekers not currently available for work	Excluded	Included	Excluded, but no test of availability	Excluded, but no test of availability
Persons who did some work and also looked for work	Included [7]	Excluded	Excluded	Excluded
Special exclusions	Students age 18 or over registered for vacation employment; severely disabled persons	--	--	--
Base for unemployment rate	Wage and salary labor force	Civilian labor force	Total labor force	Total labor force

Footnotes at end of table.

Exhibit 1 (Cont'd.)

Item	Sweden	United States
Source	Labor force survey	Labor force survey
Frequency	Monthly	Monthly
Age limits	16 to 74 years old	16 years and over
Reference period	1 week	1 week
Reference period for jobseeking	60 days	4 weeks
Whether included in labor force:		
Career military personnel	Included	Excluded
Unpaid family workers working less than 15 hours	Excluded	Excluded
Whether included in unemployed: 1/		
Persons on layoff	Included	Included
Persons who have not actively sought work 4/	Excluded	Excluded
Temporarily ill jobseekers	Included	Included
Students seeking work	-- 11/	Included
Persons waiting to report to a new job at a later date	Included	Included
Jobseekers not currently available for work	Included 13/	Excluded
Persons who did some work and also looked for work	Excluded	Excluded
Special exclusions	--	--
Base for unemployment rate	Total labor force	Civilian labor force

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1/ For statistics based on employment office registrations, the term "included" applies only to the unemployed who are registered.
2/ Automatically included if on temporary layoff of 4 weeks or less; must be actively seeking work if on lengthier layoff.
3/ Automatically included if on temporary layoff of 26 weeks or less; must be actively seeking work if on lengthier layoff.
4/ Except persons on temporary layoff or waiting to start a new job who are not required to seek work in the countries where they are classified as unemployed.
5/ Full-time students seeking full-time work during the school term are excluded.
6/ Although the jobseeking period is unspecified, there is a question on jobseeking activities during the 1-month period including the reference week.
7/ Persons must be without work on the day of the registration count, but some may have done work earlier or later in the week.
8/ Persons who stated they were seeking work but who also did some marginal work during the reference week.
9/ Although the survey is conducted monthly, only annual averages are published.
10/ Although the jobseeking period is unspecified, there is a question on jobseeking activities during the reference week.
11/ Full-time students are included in the unemployed only when seeking work during school vacations.
12/ Included if illness is so minor that the person is currently available for work.
13/ Except students whose current availability is probed.

SOURCE: U.S. Department of Labor, Bureau of Labor Statistics, BLS Bulletin #1979, forthcoming.

B. Data Collection Methods

A second major source of non-comparability in intercountry data is differences in data collection methods. There are basically two labor force data collection methods: (1) census or sample survey methods and (2) counts of registrants at employment exchanges or claimants for unemployment compensation. The countries which use survey methods for official employment and unemployment statistics include Australia, Canada, Italy, Japan, Sweden and the United States. Countries which use registration methods include France, Germany and the United Kingdom.

Registration methods of data collection differ from survey methods insofar as (1) the coverage of registration data may be less comprehensive than survey data (not all persons are registered) and (2) differences across countries in legislation and administrative regulations affect registration data more than survey data, and changes in such provisions over time affect the continuity of registration data more than survey data.

International organizations which compile labor force statistics (without original data collection) do not and cannot routinely adjust national statistics to achieve comparability when national data collection methods differ. The best that can be achieved is occasional special studies which quantify, for a given time and place, the difference between a variable measured by survey methods and also by registration methods. This result can then be used to gain an idea of roughly what one country's statistics would be if they were collected by the same method as used in another country against which a comparison is sought.

C. Magnitude of Comparability Problems

Some special studies have been done, particularly by the U.S. Bureau of Labor Statistics, to determine the magnitude of the comparability problem in intercountry labor force data. These studies focus on adjustments to national employment and unemployment statistics which differ both because of different variable definitions and different data collection methods. Once these adjustments are made, the original non-comparable intercountry data can be displayed alongside the adjusted comparable data and the magnitude and direction of error in using non-comparable data become apparent.

These adjustments may achieve statistical comparability, but they cannot achieve substantive comparability. That is, differences in intercountry data caused by differences in national economic and social structures cannot be eliminated. Rather, the object of comparability adjustments is, in part, to permit analyses of these causes. For example, statistically comparable high or low unemployment rates may be traceable to (1) the characteristics of the labor force (e.g., the number of women or young people), (2) the industrial and occupational structure of the economy (e.g., the number of agricultural workers, professionals and self-employed people, and the capital-labor ratio), (3) the rate and pattern of economic growth, and the business cycle, (4) economic and social features, such as wage levels for youth, geographic mobility and attitudes toward unemployment, or (5) government programs and legal provisions.

Unemployment data presented in this report are intended to be comparable with regard to definitions (except for reporting errors or where otherwise noted) but not all are comparable with regard to data collection methods. The OECD makes no adjustment for data collection methods in its unemployment statistics by age or sex but the BLS does. France, Great Britain and Germany are countries which use registration (registrants at employment exchanges) rather than sample survey data for their official unemployment statistics. Because labor force sample surveys provide a better basis for international unemployment comparisons than statistics on registrations at employment offices, comparisons involving these countries must be made cautiously. Some idea of the magnitude of the comparability problem here can be obtained from the exhibits below which compare unemployment rates as originally published in national sources with the same variable adjusted by the BLS to account for differences in data collection methods.

Exhibit 2

Unemployment Rates for France, Germany and
Great Britain: National and Adjusted Figures

Year	France 1/	Germany	Great Britain
		Data adjusted to U.S. concepts	
1970	2.8	0.8	3.1
1973	2.9 2/	0.8	3.2
1976	4.9 2/	3.8 2/	6.4 2/
		Data as originally published	
1970	1.7	0.7	2.5
1973	2.1	1.2	2.6
1976	4.6 2/	4.6	5.6 2/

1/ The "as published" data for France reflect upward adjustments made by INSEE to account for the unregistered unemployed.
2/ Preliminary estimates based on incomplete data.

SOURCE: Moy, J. and Sorrentino, C., "An Analysis of Unemployment in Nine Industrial Countries," Monthly Labor Review, Vol. 100, No. 4, April 1977.

The following exhibit provides an illustration of the even greater effect the difference in data collection methods has on youth unemployment statistics in particular.

Exhibit 3

Youth Unemployment Rate in Germany: Registration and Survey Figures

Unemployment as percent of workforce under age 25

Year	Registration	Survey 1/
1970	12	39
1974	27	29
1976	26	34

1/ Data for April.

SOURCE: Correspondence from C. Sorrentino, January 9, 1978.

Following are highly condensed accounts of the adjustments made by BLS to the registration data of France, Germany and Great Britain to make it more comparable to sample survey data.

France: The official monthly unemployment figures for France are based on the number of registrations at employment offices. Persons seeking part-time work and other jobseekers who fail to register are excluded; persons who did some work during the week of the count but were out of work on the day of the count and registered are included. Since 1974, French authorities have made annual estimates of the unemployed based on the results of labor force surveys conducted in March of each year. For adjustment to U.S. concepts, BLS utilizes the results of the annual French labor force surveys, the registered unemployed figures and the French annual estimates of the labor force. The figures on unemployment adjusted to U.S. concepts are considerably higher than the figures from the registered unemployed series in 1970 and 1973.

Germany: The principal and official unemployment figures for Germany are administrative statistics representing the monthly count of unemployed registered at the employment offices. Germany also conducts a labor force survey, the Microcensus, every April or May which provides a better basis for estimating unemployment under U.S. concepts than the registration series. The unemployment rate derived from adjusted survey and registration data is usually lower than the official German rate based on the registered series.

Great Britain: The official unemployment statistics for Great Britain are obtained from a count of registrations at employment offices and the separate "careers offices" for young people. Figures from the 1961 population census, the 1966 "sample census" and the General Household Surveys (available beginning in 1971) were used to make a British unemployment rate adjusted to U.S. concepts which is significantly higher than the reported rate. The General Household Survey relates only to Great Britain, thus BLS could not prepare adjusted data for the United Kingdom (Great Britain and Northern Ireland). Unemployment rates based on registration statistics are usually higher in Northern Ireland than in Great Britain.

The unemployment rates for particular age-sex groups adjusted by BLS are less reliable than the aggregate adjusted unemployment rates. Adjustments made to overall unemployment rates are based on published statistics generally available each year, while adjustments by age and sex must often be partially estimated on the basis of data for years other than those studied.

II. Education Statistics

Comparability of intercountry data on education is hampered chiefly by differences in national educational systems and by differences in definitions of variables within systems. Both the OECD and UNESCO have developed a standard international classification of educational systems and do some adjustment to move closer toward comparability.

A. Educational Systems

National educational systems differ along several dimensions, e.g., the number and length of schooling cycles, the type and content of education, the structure of institutions of education, and the scheduling of schooling in relation to work or other activities. If educational systems differ along one or more of these dimensions, statistics on enrollment and educational attainment cannot be compared across countries.

Most of the data used in this report are assembled by the OECD and follow the OECD classification of educational systems. The OECD classification is intended to serve "as a suitable framework for the compilation of comparable educational statistics" (Methods and Statistical Needs for Educational Planning, OECD, Paris, 1967). Other education data in this report are from UNESCO, whose treatment of data is compatible with that of the OECD.

The OECD classification of educational systems attempts to provide for international comparability of educational statistics by level and type of education. It does so by fitting the elements of each country's educational system into a single set of uniform definitions by use of a "conversion key." The analytical framework and rationale for the classification was developed in 1967 and the classifications themselves were completed in 1975.

The OECD classification includes the regular educational system of a country on which national statistics are collected. Features of each country's educational system were analyzed, such as the length of studies, admission requirements (e.g., previous schooling), qualifications conferred, transfer possibilities to other types of education and scheduling of studies on a full-time or part-time basis. On the basis of this analysis, each level and type of education was reclassified under the OECD system. That classification system has the following levels and types:

Preprimary
Primary
General Secondary (with and without
  access to higher education)
Technical Secondary (with and without
  access to higher education)
Higher, non-university type
Higher, university type
Special
Adult

The OECD classification is based on the type of education and not on the institution providing education. This means that some institutions may be included under more than one OECD heading above if they provide more than one kind of education. On the other hand, if data are not collected in sufficient detail in some countries, regardless of institutions, then OECD headings have to be collapsed into more aggregated categories.

The definition of these levels and types of education to which reference is made in this report is as follows:

> Primary education: Compulsory general education for all pupils, covering only those years of study during which there is no differentiation in subject options or streaming of pupils toward different types of education or institutions. The cycle is usually six years (except in most of Germany where it is four years).
>
> General secondary education: Education which is not intended to be direct preparation for an occupation. It may occur in two cycles, with the first corresponding to the completion of compulsory schooling, while the second

is entirely independent. The first cycle may be terminal (type b) and provided in different institutions from the second, or it may be preparatory to the second cycle (type a). Alternatively, general secondary education may form a whole extending from primary schooling up to higher education (as in the United States).

Technical secondary education: Education designed as direct preparation for an occupation or trade. It may follow directly after primary education, but usually starts at the end of a first cycle of general secondary education. It may be terminal (type b) or may provide access to higher education (type a). (In the United States, distinctions between general and technical and between type a and type b secondary education are difficult to make insofar as all pupils attend the same type of institution and can only be differentiated by their program of study.)

Higher education, non-university type: Education which requires completion of secondary education or its equivalent as a minimum condition of admission, and which leads to a specific qualification (often occupational) unlike the first university degree insofar as it usually does not permit postgraduate degree studies. This cycle may be terminal or it may be preparatory to other cycles.

Higher education, university type: Higher education leading to a first university degree (bachelor's degree in the United States) or higher level. This education is usually harder to enter and of longer duration than non-university type. However, short-cycle university-type higher education may be provided in the same institutions. Transfer by credits also reduces the difference between university and non-university type higher education.

To illustrate the OECD classification of educational systems, the U.S. educational system is displayed in terms of OECD definitions in Exhibit 4.

Of course, even a carefully conceived standard classification system cannot achieve full international comparability. In a field as complex as education, it is sometimes difficult to fit a particular national category into a clearly defined type of education. This is the case more particularly in countries where the barriers separating educational levels have been removed. Moreover, educational systems are continuously changing. While the present classification is valid for the current time, it may no longer hold for the new educational structures and concepts toward which some countries are moving, especially the discontinuance of strict levels or grades and the growth of recurrent education. As students gain increasing freedom to move

Exhibit 4. The United States Educational System Under the OECD Standard Classification

Pre-primary	Primary	General secondary (a)	General secondary (b)	Technical secondary (a)	Technical secondary (b)	Higher non-university type	Higher university type	Special	Adults
Nursery schools, pt Kindergartens, pt Parent co-operatives, FT Community day care centers, FT Child development centers, FT Hospital pre-schools, FT	Elementary schools, FT - from 1st to 6th year of study Middle schools FT (5th and 6th years)	Elementary schools, FT - beyond the 6th year of study Middle schools, FT (7th and 8th years) Specialized high schools, pt, FT	High schools, FT Junior high schools, FT Senior high schools, FT		High schools (vocational courses proper), FT Vocational or technical high school, FT	High schools (vocational courses), 13th and 14th year of study, FT Junior college, FT Community colleges, FT Technical institutes, FT	Universities, FT Liberal arts colleges, FT Teachers colleges, FT Professional schools and colleges, FT Institutes of technology, FT	Special Education, FT	Evening classes, pt Extension classes, pt Public schools, pt Colleges and universities, pt Private industry, business firms, etc., pt. Labor unions, pt Young Men's Christian Association, Young Women's Christian Association, churches, private schools, radio stations, educational television stations, etc., pt

SOURCE: Organization for Economic Cooperation and Development, Classification of Educational Systems, Belgium, Denmark, United States, Paris, 1972.

among curricula, as well as among institutions, any classification systems lose meaning. Because the classification system was designed to provide a basis for measuring and describing the behavior of educational systems in a comparable way and not to measure educational output or performance in relation to given objectives, expectations about what statistics assembled under such a classification system can say about the problems of youth unemployment should be modest.

B. Variable Definitions

Aside from classifying national educational systems, the OECD classification also necessarily provides standard definitions of terms (Classification of Educational Systems, Summary Volume, OECD, Paris, 1975).

Compulsory education: The duration of schooling required by national authorities, measured by the age of the student.

Pupil or student: A person enrolled in a school or university institution to follow a particular course of studies. The number of students may be measured by the number of persons, the number of enrollments or the number present at a given time when data are collected. For international comparisons, there must be agreement on the method of measurement.

Full-time and part-time students: The distinction between full-time and part-time pupils depends on the programs for which they are enrolled and whether they are organized on a full-time or part-time basis; for example, a student enrolled in a full-time university program is considered a full-time student even if he attends courses only part (or none) of the time. The full-time equivalents of part-time students ideally are calculated by dividing the number of program hours (hours spent in courses, seminars or other work requiring control or supervision by a teacher) for a part-time student by the average number of program hours for a full-time student. Young people engaged in part-time vocational training on completion of full-time compulsory schooling (e.g., Berufsschulen in Germany) and apprentices with a certain number of compulsory courses per week are considered to fall within the "regular" part-time system.

New entrants: Pupils or students enrolled for the first time in the first year of a given program. A student already holding a degree in one field who enrolled in the first year of a different program would be considered a new entrant. Also, a student who for some reason entered directly into the second year of a given program should be considered a new entrant. However, the latter category of students is not generally included among new entrants and thus the calculation of transition coefficients between various types or levels of education is slightly distorted.

Graduates: Pupils or students who have passed tests (examination or continuous assessments) at the end of a given course or program of studies and have thus obtained a specific degree of qualification [bachelor, doctor, CAP (proficiency certificate), etc.].

Rate of admission to higher education: The average proportion of an age group entering post-secondary education. It measures average chances of admission and can be used for international comparison. It is the result of a process which operates during secondary education and of the conditions governing transfer from this level to the post-secondary level.

Enrollment rate: The ratio of all students in a category of education (e.g., secondary general or higher education) to the population of the age group to which more than three-quarters of the students belong. This population varies from country to country. Enrollment rates take into account both the length of study and the age structure of the student population.

III. Guide to the Data in this Report

A. Labor Force Statistics

The labor force statistics presented in this report are intended to be comparable with regard to definitions except where noted or subject to errors in the OECD compilation process.

Data shown for France, Germany and Great Britain are not comparable to each other or to other countries in tables in this report citing OECD as its source. The OECD does not adjust figures for differences in data collection methods. Labor force data from the BLS have been adjusted to conform to U.S. concepts unless noted otherwise.

In all cases, the more highly aggregated statistics are the more reliable and the more comparable. More disaggregated data, such as unemployment rates by age and sex, are less reliable and, due to adjustment difficulties, are less comparable.

Institutional differences, economic structures and other factors give rise to other comparability problems which cannot be adjusted for. On the whole, the adjusted figures provide a better basis for international comparisons than the regularly published national figures.

B. Education Statistics

The OECD has developed a standardized classification of national educational systems which accommodate differences in the elements of education systems across countries and make data comparable by level and type. However, substantive conclusions about educational outcomes must be drawn with care because of differences in length and intensity of education by level and type.

As with labor force statistics, education data are subject to comparability problems due to differences in the sociological, cultural and economic structures of the countries involved.

Comparison is also limited by the differences in years for which data are gathered, a typical characteristic of international data. The reader is urged to rely more heavily on a comparison of trends rather than on absolute numbers. The use of ratios to facilitate intercountry or intertemporal comparison is often observed. As a first step in analysis, this procedure is obviously useful because comparisons in absolute terms have limited significance between countries with, for example, widely different populations or differing rates of population growth.

C. General Remarks

The term "youth," when used in reference to the youth unemployment problem, is intended to refer to the population 15 to 24 years of age. A single term conveys a false sense of intra-age group homogeneity in social and vocational characteristics. "Youth," for some purposes, is best understood as that period when the transition is initially made from school to work (somewhere between 15 and 24). This includes:

(1) School Leavers--generally between 14 and 16 years of age who often drop out of school before graduating and possess minimal skills.

(2) Secondary School Graduates, aged 17-19, who, in addition to a secondary certificate, may have some form of post-secondary training and/or work experience.

(3) Twenty to twenty-four year olds who may have had some, or even completed, tertiary education and/or several years of work experience.

"Unemployed youth," however, as used here, includes first time job seekers, repeat job seekers with previous labor market experience and full- and part-time workers who are out of work.

Teenagers, unless otherwise stated, are those persons 15 to 19 years of age.

The reader will note the volume follows a particular format with each table succeeded by the following information when applicable:

Notes: Any terms or remarks pertinent to a particular table are defined either within the notes of that table or, if common throughout the volume, in the section entitled "Intercountry Data."

Frequency of Reporting: Information as to how often the particular set of data is compiled and made available to the general public is included. In the case of an international study, frequency does not refer to how often data are reported by a country but rather how often the appropriate international adjustments are made and the particular data are compiled. If data are taken from a "one-time study" source, but appear elsewhere annually or quarterly (for example), it is noted as being reported annually or quarterly.

Data Also Available For: This study is limited to selected industrialized member nations of the Organization for Economic Cooperation and Development, including Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Ireland, Italy, Japan, Netherlands, Norway, Sweden, Switzerland, United Kingdom and the United States. If sources from which data is taken for these countries include other countries not mentioned above, it is so noted.

Other Similar Data: When data on the same subject for the same years are available, it is noted.

Source: The publication from which data are taken is noted. In some cases, data are calculated and the source(s) from which these calculations are made is listed. In other cases, preliminary and/or unpublished data are used and noted as such. The source is referenced to the international agency compiling the information rather than to the national agencies that supplied the initial statistics to the international organization.

SECTION ONE: YOUTH UNEMPLOYMENT: A GROWING CONCERN FOR EDUCATION

This section seeks to present the dimensions of youth unemployment in selected industrialized nations and to put it in the context of national population and labor force statistics. It addresses the question of whether or not the unemployment figures suggest any more than temporary problems of youths in finding an initial job.

The formulation of policies in the United States that draw on the lessons from other nations requires a better understanding of the factors contributing to youth unemployment in Europe and in this country. Europe generally tends to have lower youth unemployment rates than the United States. Data assembled in this section on patterns and trends in youth unemployment can be used for simple analyses of such differences. Examples of questions to be asked are legion. What share of total unemployment is represented by youth? What have been the year to year changes over the past decade in level of youth unemployment and the relative rates of youth unemployment, as well as the share of total unemployment made up by youths?

What is known about unemployment for those who are also in school attendance at some time during the year? Many young persons in the United States work part-time while at secondary school or at the university. Is the unemployment rate responding to the part-time work and school? The movement between work and school during the course of a year may create temporary layoff periods that are different in kind and consequence from lack of work for those who are not students either part-time or full-time.

Unemployment rates for those who have been at school need to be differentiated from unemployment rates of those who have no similar education experience. Similarly, unemployment--its size and rate--needs to be viewed from the perspective of years of schooling completed. Is unemployment higher for those with less formal education? Is the duration of spells of unemployment longer? Do the data suggest a difference in unemployment experience between those who have had some vocational training or on-the-job learning and those who have had no such experience?

The data in this section address questions of this sort. Some basic facts about youth unemployment by age, sex and schooling over time are presented. Other questions about youth unemployment can be raised on which insufficient intercountry data exists. For example, theories of dual labor markets tend to differentiate the market by the nature and characteristics of job behavior, including aspirations for advance, discipline about punctuality and other job performance. Is job turnover higher and are spells of unemployment longer for those who, because of little schooling or discrimination, find themselves in a secondary labor market with little prospect for advance or personal realization, and with many spells of intermittent unemployment?

How are youth unemployment rates affected by mobility, both occupational and geographic? Does high mobility cause high turnover for youth, and is that a disincentive to the employment of young people?

Past experience necessarily must be supplemented by future prospects of youth unemployment. Will the problem grow over the next decade? Or are the relative numbers of youths in the population likely to decline or grow at a reduced rate?

Will more schooling opportunities for young persons contribute to a higher rate of unemployment for those with secondary education or will the increase in school achievements mean better preparation for work and less loss in working time in the future than has been experienced in the past?

Our review of existing data suggests that major pieces of information are not now assembled on a recurrent, up-to-date basis as a policy support. Unless they are, the guidance necessary for policy formulation and as a basis for evaluation of program will be lacking.

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The age structure of the population is an indication of current and future youth employment needs.

The age structures of the population of industrialized countries are markedly different from one another, even when fairly wide five-year age brackets are used.

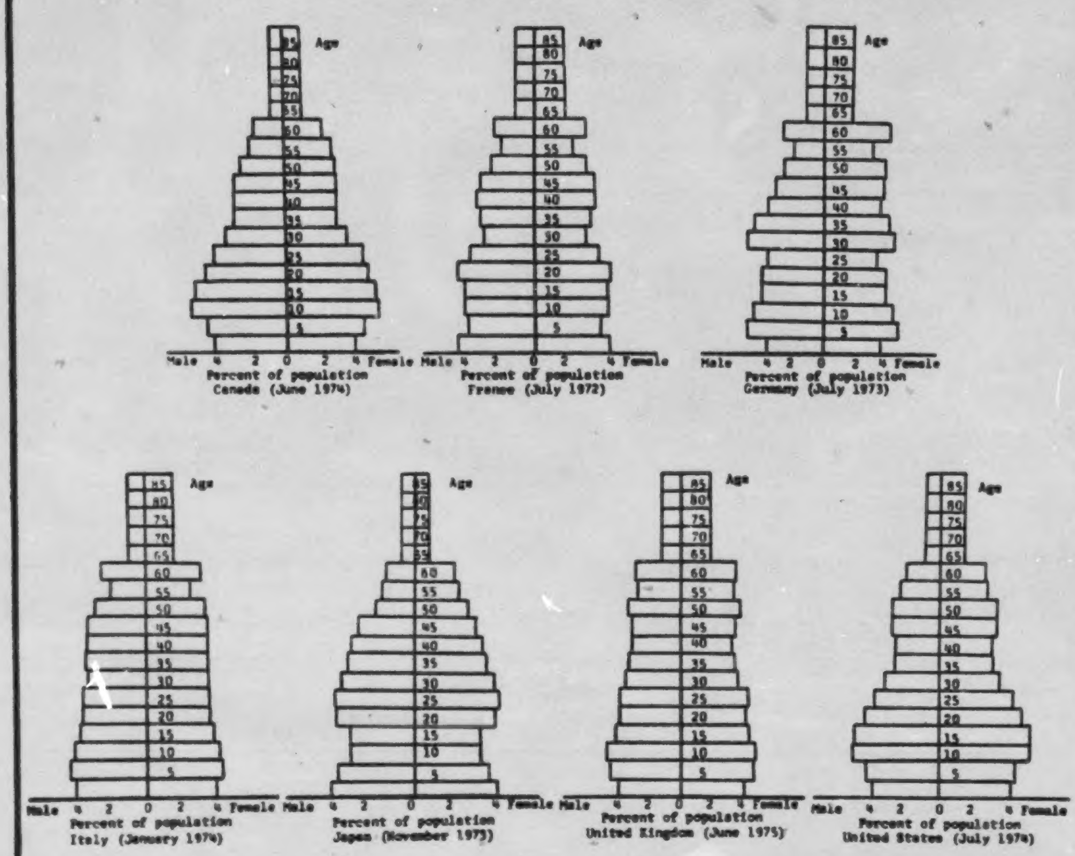
The United States and Canada have large youth bulges in the age structure of their propulations due to the post-war baby boom, followed by a rapidly falling birth rate. This bulge undoubtedly produced higher youth unemployment than would otherwise have been the case. Within a relatively short time, the small cohorts shown in these diagrams as ages 0-4 and 5-9 will change the situation drastically and the pressure on youth unemployment should slacken. In France and the United Kingdom, the bulges are less marked and the reduction in pressure seems already to be occurring. In Western Germany, the inflow into the youth bracket will slacken appreciably around 1985. A roughly similar pattern exists in Italy. Japan presents a very unusual pattern. Its bulge occurred well before that of other countries and currently the pressure from inflow into the youth ages is relatively low; however, the birth rate rose around 1964, and another bulge in the youth ages should now be starting.

The effects on youth unemployment rates of population structure changes due to fluctuating birth rates can be moderated or exaggerated by other factors. In particular, changes in educational opportunities and armed forces obligations may modify the pressure created by population shifts. It appears, however, that at least in the United States, Canada and Japan, the population shifts must have significantly increased youth unemployment in the past and will decrease it in the future.

See Table 1.1

Chart 1.1

Population by Age in Selected OECD Countries: Various Years



Canada (June 1974)

France (July 1972)

Germany (July 1973)

Italy (January 1974)

Japan (November 1973)

United Kingdom (June 1975)

United States (July 1974)

Source of Data: United Nations

Table [illegible].1

Population by Age in Selected OECD Countries: Various Years

(Population in thousands)

Country (Year of population estimate)		Total population	0-4 (1970-74)	5-9 (1965-69)	10-14 (1960-64)	15-19 (1955-59)	20-24 (1950-54)	25-29 (1945-49)	30-34 (1940-44)	35-39 (1935-39)	40-44 (1930-34)	45-49 (1925-29)	50-54 (1920-24)	55-59 (1915-19)	60-64 (1910-14)	65+ Before 1910
			Age in years (birth years)													
Canada 1974	Total	22,446	1,766	1,979	2,352	2,277	2,033	1,856	1,506	1,275	1,273	1,244	1,179	967	854	1,883
	M	11,217	906	1,013	1,203	1,162	1,022	927	768	648	651	623	579	472	417	827
	F	11,229	860	967	1,149	1,116	1,011	930	737	627	623	622	600	495	437	1,057
Percent of population			7.86	8.82	10.48	10.14	9.06	8.27	6.71	5.68	5.67	5.54	5.25	4.31	3.80	8.39
France 1972	Total	51,703	4,221	3,865	4,179	4,140	4,394	3,672	2,942	3,187	3,374	3,263	2,736	2,084	2,641	7,004
	M	25,292	2,159	1,972	2,126	2,105	2,260	1,913	1,534	1,637	1,713	1,623	1,334	990	1,228	2,701
	F	26,411	2,062	1,893	2,052	2,035	2,134	1,759	1,408	1,550	1,661	1,640	1,403	1,094	1,416	4,302
Percent of population			8.16	7.48	8.08	8.01	8.50	7.10	5.69	6.16	6.53	6.31	5.29	4.03	5.11	13.55
W. Germany 1973	Total	61,976	3,922	5,094	4,856	4,293	4,270	3,885	4,969	4,603	3,870	3,780	3,512	2,694	3,635	8,596
	M	29,646	2,010	2,613	2,491	2,206	2,182	2,026	2,612	2,412	2,005	1,747	1,467	1,111	1,495	3,271
	F	32,330	1,912	2,481	2,365	2,087	2,088	1,859	2,356	2,191	1,865	2,033	2,045	1,584	2,140	5,325
Percent of population			6.33	8.22	7.83	6.93	6.89	6.27	8.02	7.43	6.24	6.10	5.67	4.35	5.87	13.87
Italy 1974	Total	55,180	4,367	4,647	4,409	3,975	3,889	3,868	3,722	3,728	3,699	3,643	3,301	2,417	3,000	6,514
	M	26,991	2,241	2,383	2,259	2,026	1,983	1,949	1,852	1,845	1,830	1,785	1,567	1,140	1,420	2,723
	F	28,189	2,126	2,264	2,150	1,949	1,906	1,919	1,870	1,884	1,871	1,858	1,734	1,277	1,591	3,791
Percent of population			7.91	8.42	7.99	7.20	7.05	7.01	6.75	6.76	6.70	6.60	5.98	4.38	5.44	11.81
Japan 1974	Total	110,049	10,023	8,768	8,060	8,075	9,595	10,047	9,294	8,323	8,050	7,104	5,571	4,506	4,178	8,456
	M	54,010	5,159	4,487	4,116	4,108	4,803	4,982	4,609	4,150	4,030	3,502	2,467	2,022	1,900	3,675
	F	56,039	4,865	4,281	3,944	3,966	4,793	5,056	4,685	4,172	4,020	3,602	3,104	2,485	2,278	4,781
Percent of population			9.11	7.97	7.32	7.33	8.72	9.13	8.45	7.56	7.31	6.46	5.06	4.09	3.80	7.68
United Kingdom 1975	Total	55,962	3,954	4,498	4,624	4,127	3,857	4,179	3,466	3,246	3,156	3,291	3,534	3,028	3,177	7,828
	M	27,233	2,035	2,309	2,372	2,111	1,962	2,111	1,756	1,646	1,588	1,635	1,734	1,453	1,487	3,035
	F	28,730	1,920	2,189	2,251	2,016	1,895	2,069	1,711	1,601	1,567	1,655	1,801	1,576	1,690	4,793
Percent of population			7.07	8.04	8.26	7.37	6.89	7.47	6.19	5.80	5.64	5.88	6.31	5.41	5.68	13.99
United States 1974	Total	211,390	16,304	17,592	20,719	20,760	18,507	16,131	13,487	11,396	11,358	11,847	11,966	10,302	9,205	21,816
	M	102,945	8,329	8,964	10,564	10,508	9,196	7,983	6,637	5,544	5,545	5,740	5,758	4,912	4,299	8,966
	F	108,446	7,976	8,629	10,155	10,252	9,311	8,147	6,851	5,851	5,814	6,107	6,208	5,390	4,906	12,849
Percent of population			7.71	8.32	9.80	9.82	8.75	7.63	6.38	5.39	5.37	5.60	5.66	4.87	4.35	10.32

1/ Birth years for the countries with data for 1974. For France, birth years are 2 years earlier; for W. Germany, 1 year earlier; and for the United Kingdom, 1 year later.

NOTES.—The statistics by the United Nations in the Demographic Yearbook are official data. Questionnaires were sent out to the national statistical services and other appropriate government offices and then compiled at the Statistical Office of the United Nations. The comparability of the data is affected by several factors, including: (a) the definition of the total population, (b) the variations in the collection and compilation of national age data and (c) the quality of population estimates.
FREQUENCY OF REPORTING: Annual.
DATA ALSO AVAILABLE FOR: United Nations member countries.

SOURCE: United Nations, Demographic Yearbook 1975, New York, 1976.

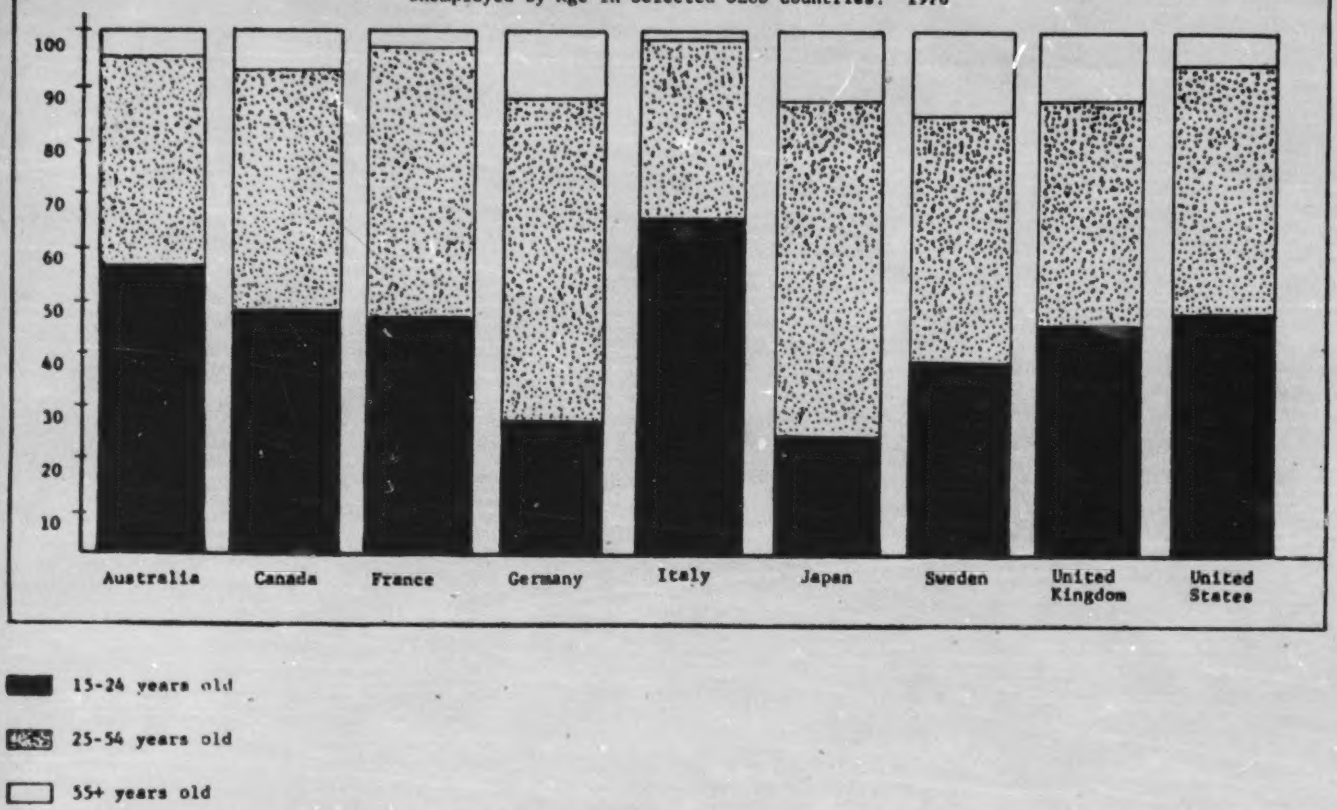
__The age composition of unemployed persons varied among OECD countries in 1976__.

In several countries, the number of young people who are unemployed is almost as large as or actually exceeds the number of all adults who are unemployed.

See Table 1.2

Chart 1.2

Unemployed by Age in Selected OECD Countries: 1976



Source of Data: OECD

Table 1.2.--Age distribution of unemployed persons: 1976

(Percentage distribution)

Country	Reference period	Years of age		
		15-24	25-54	55+
Australia	1976 ave	56.0%	39.6%	4.5% 1/
Canada	1976 ave	48.2	45.5	6.4
France 2/	1976 Q4	46.3 3/	49.9 4/	3.8 5/
Germany	1976 ave	28.5 3/	59.5	11.8
Italy	1976 ave	64.1 6/	34.3	1.6
Japan	1976 Q4	23.9	62.2	15.3
Sweden	1976 ave	38.4 7/	45.5	18.2
United Kingdom 8/ 9/	1976 July	43.8 3/	41.2	14.8
United States	1976 ave	46.3 7/	44.8	8.9

1/ Males only; unemployment of females age 55 and over is so low that it is not statistically significant.
2/ Job applicants still registered at the end of the month.
3/ Less than 24 years of age.
4/ 25-59 years of age.
5/ 60 years of age and over.
6/ Age group 14-24.
7/ 16-24 years of age.
8/ Adult students registered for vacation employment are excluded from all unemployment series.
9/ Great Britain.

NOTES.—See section entitled "Intercountry Data" for discussion of international comparisons of labor force statistics. Full comparability across countries cannot be assumed, especially for France, Germany and the United Kingdom due to differences in data collection methods. Figures for Italy may be distorted by labor market practices.

SOURCE: Organization for Economic Cooperation and Development, Economic Statistics and National Accounts Division, Labor Force Statistics, quarterly supplement, Paris, February 1977.

Joblessness among youths has increased over time in industrialized countries.

The number of unemployed youths has increased absolutely by large amounts in the last 10 years. It has also increased more than all employment. This is true for all countries listed except for Japan; this exception may be attributable to culture and population patterns. The United States is also an exception for the proportion of all unemployment accounted for by youth for the most recent years only.

Table 1.3

Unemployment of Youths and Total Unemployed in Selected OECD Countries: 1965, 1970, 1974, 1976

	Number unemployed (In thousands)				Percent change	Percent change
Country	1965	1970	1974	1976	1965-70	1970-76
Canada 1/						
15-24	109	223	254	355	104.6%	59.2%
Total	280	495	525	736	76.8	48.7
Under 25 as a percentage of total	38.9%	45.1%	48.4%	48.2%		
France 2/						
15-24	NA	75	210	399	NA	432.0
Total	269	510	615	993	89.6	94.7
Under 25 as a percentage of total	NA	14.7	34.1	40.2		
Germany						
15-24	11 3/	18	158	277	63.6 3/	1,438.9
Total	147 3/	149	582	1,060	1.4 3/	611.4
Under 25 as a percentage of total	7.5 3/	12.1	27.1	26.1		
Italy						
14-24	361	373	364	469	3.3	25.7
Total	714	609	560	732	-14.7	20.2
Under 25 as a percentage of total	50.6	61.2	65.0	67.8		
Japan						
15-24	237	220	220	252	- 7.2	14.5
Total	570	590	740	1,084	3.5	83.7
Under 25 as a percentage of total	41.6	37.3	29.7	23.2		
United Kingdom 4/						
15-24	66	160	151	615	142.4	284.4
Total	299	555	542	1,332	85.6	140.0
Under 25 as a percentage of total	22.1	28.8	27.9	46.2		
United States						
16-24	1,431	1,969	2,592	3,371	37.6	71.2
Total	3,366	4,088	5,076	7,288	21.4	78.3
Under 25 as a percentage of total	42.5	48.2	51.1	46.3		

1/ New series for Canada in 1976. Canada has prepared estimates on the new basis back to 1966. These estimates indicate that the trend shown here is only slightly changed by the 1976 revision.

2/ Figures shown for France for total unemployed are from the French labor force survey conducted by INSEE and refer to "persons available for work and in search of employment"; those for unemployed youths are Ministry of Labor figures and refer to "job applicants still registered at the end of the month." Since unemployment registration figures are typically lower than survey figures, the percentages are lower than if just one type of data was used.

3/ Figures for 1964.

4/ Total unemployed figures refer to the United Kingdom; unemployed youth figures refer to Great Britain only, thus lowering the percentages.

NOTES.—Data were prepared by the OECD Secretariat in response to the request of the Working Party on Employment and Unemployment Statistics. The data are based on the same definitions as those used in the OECD publication Labor Force Statistics. These definitions are based on the work of the United Nations and the 8th Conference of Labor Statisticians. See the section entitled "Intercountry Data" for a discussion of international comparisons of labor force statistics. Full comparability across countries cannot be assured.
OTHER SIMILAR DATA: Labor Force Statistics, quarterly supplement, OECD, Paris, February 1977.

SOURCE: Organization for Economic Cooperation and Development, unpublished data, Paris, 1977.

Youth unemployment has increased faster relative to all unemployment in recent years.

The rate of increase of youth unemployment was especially rapid in Germany and the United Kingdom from 1973 to 1976. In those countries and in France, youth unemployment, relative to all unemployment, increased the most.

Table 1.4

The Rise of Youth Unemployment in Selected OECD Countries: 1975, 1976

Country	Unemployed workers under 25 1973=100		Total unemployed 1973=100	
	1975	1976	1975	1976
Canada 1/	132	143	134	141
France	263	287	154	172
Germany	564	543	393	388
Italy	99	111	97	109
Japan	108	110	143	161
United Kingdom	254 2/	455 2/	150	231
United States	162	152	181	169

1/ New series beginning 1975.
2/ Unemployed youths refer to Great Britain only.

NOTES.—See the section entitled "Intercountry Data" for a discussion of international comparisons of labor force statistics. Full comparability cannot be assumed, especially for France, Germany and the United Kingdom, due to differences in data collection methods. However, use of indexes alleviates this problem.

SOURCE: Organization for Economic Cooperation and Development, unpublished paper, "Labour Market Accounting: Conceptual Problems and Empirical Measurement," Paris, August 19, 1977; Labor Force Statistics, quarterly supplement, Paris, February 1977.

The severity of teenage unemployment worsened from 1970 to 1976.

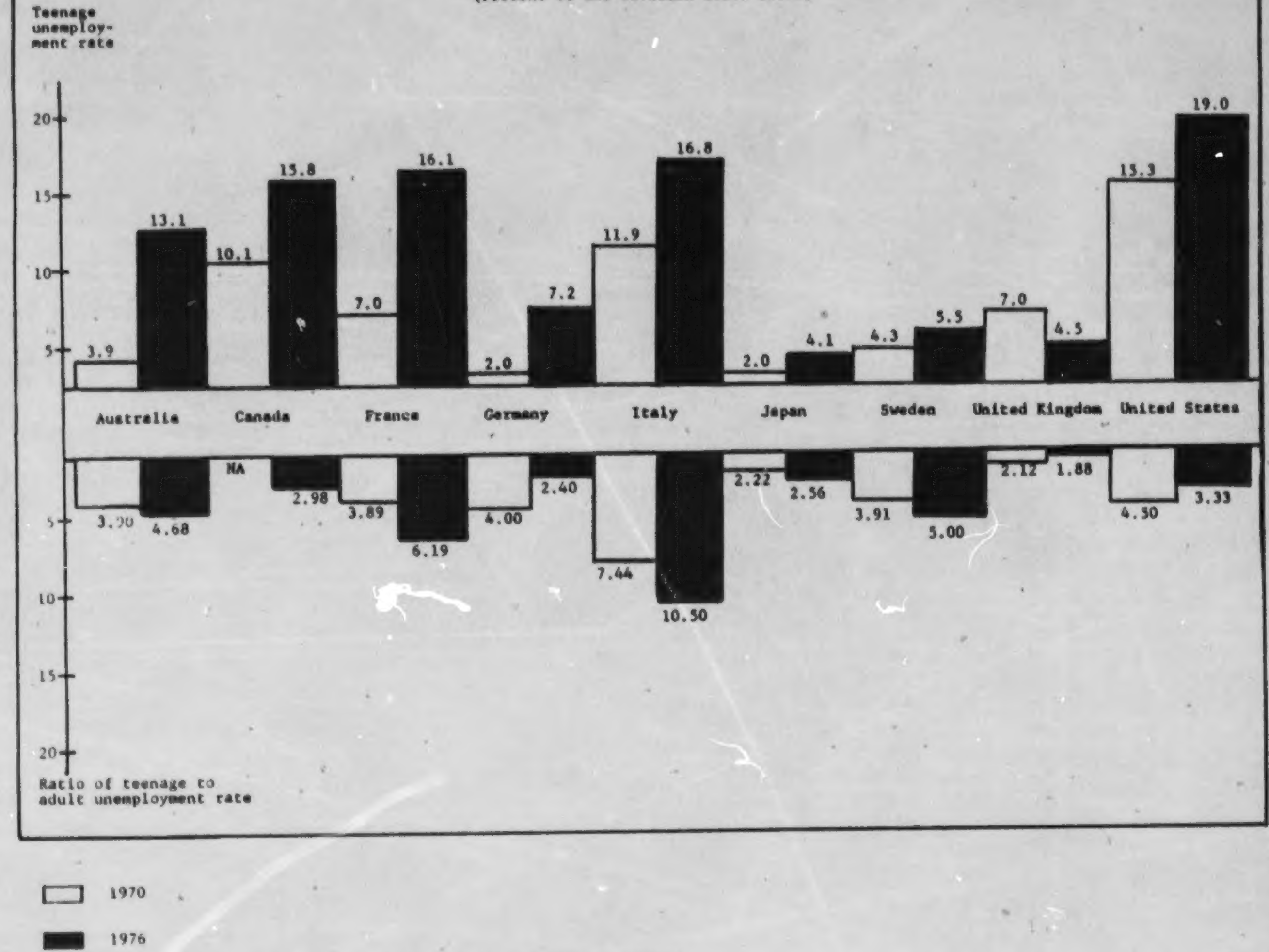
The unemployment rate for teenagers was higher in 1976 than it was in 1970 for all countries considered. It was highest in the United States in both years. The teenage unemployment rate was much above the adult unemployment rate in all countries. This gap widened from 1970 to 1976 for many countries, but not in the United States, the United Kingdom nor Germany.

See Table 1.5

Chart 1.5

Teenage Unemployment Rates Relative to Adult Unemployment Rates in Selected OECD Countries: 1970, 1976

(Percent of the civilian labor force)



Source of Data: U.S. Department of Labor, Bureau of Labor Statistics

Table 1.5.--Unemployment rates by sex for teenagers, 20-24 year olds and adults in selected OECD countries: 1968, 1970, 1976

(Percent of the civilian labor force)

Country	Age group	1968			1970			1976		
		Total	Male	Female	Total	Male	Female	Total	Male	Female
Teenagers										
Australia	15-19	4.2%	3.6%	4.8%	3.9%	3.7%	4.2%	13.1%	11.8%	14.6%
Canada 1/	15-19	7.7	8.7	6.5	10.1	11.3	8.6	15.8	16.4	15.1
France 2/	16-19	7.3	6.4	8.5	7.0	5.4	9.1	16.1 5/	14.1 5/	18.7 5/
Germany 3/	15-19	3.8	3.7	4.0	2.0	1.6	2.4	7.2	6.3	8.1
Italy 4/	14-19	12.4	12.5	11.9	11.9	12.2	11.5	16.8 5/	16.2 5/	17.5 5/
Japan	15-19	2.3	2.6	2.0	2.0	2.7	1.3	4.1	5.5	2.7
Sweden	16-19	5.6	5.5	6.6	4.3	3.4	5.4	5.5	4.2	7.0
United Kingdom 6/	16-19	NA	NA	NA	7.0 7/8/	7.4 7/8/	6.6 7/8/	4.5 9/	4.5 9/	4.4 9/
United States	16-19	12.7	11.6	14.0	15.3	15.0	15.1	19.0	19.2	18.7
Youths aged 20-24										
Australia		1.9	1.5	2.6	1.6	1.2	2.1	6.2	6.1	6.3
Canada 1/		NA	NA	NA	NA	NA	NA	10.6	11.2	9.9
France 2/		3.5	2.9	4.1	3.7	3.0	4.5	6.6 5/	6.4 5/	6.8 5/
Germany 3/		1.4	1.3	1.6	0.7	0.6	0.7	5.4	5.2	5.5
Italy 4/		9.3	9.3	9.1	8.8	8.7	9.0	10.3 5/	10.3 5/	10.3 5/
Japan		1.8	1.8	1.8	2.0	1.9	2.2	3.0	3.1	2.8
Sweden		3.0	3.1	2.9	2.2	2.0	2.4	2.8	2.2	3.4
United Kingdom 6/		NA	NA	NA	4.8 7/	4.8 7/	4.7 7/	NA	NA	NA
United States		5.8	5.1	6.7	8.2	8.4	7.9	12.0	12.0	11.9
Adults aged 25-54										
Australia		1.0	0.7	2.1	1.0	0.6	1.8	2.8	2.3	3.8
Canada 1/		NA	NA	NA	NA	NA	NA	5.3	4.3	7.0
France 2/		1.8	1.2	3.1	1.8	0.9	3.3	2.6 5/	1.9 5/	3.8 5/
Germany 3/		1.1	0.9	1.4	0.5	0.4	0.7	3.0	2.7	3.6
Italy 4/		2.0	2.0	2.0	1.6	1.6	1.6	1.6 5/	1.4 5/	2.1 5/
Japan		1.0	1.0	0.9	0.9	0.9	0.9	1.6	1.8	1.7
Sweden		1.7	1.8	1.6	1.1	0.9	1.3	1.1	0.8	1.4
United Kingdom 6/		NA	NA	NA	3.3 7/	3.1 7/	3.6 7/	2.4 9/	2.5 9/	2.4 9/
United States		2.3	1.7	3.4	3.4	2.8	4.5	5.7	4.9	6.8

1/ Figures shown are on revised basis. In 1976, Canada began a new labor force survey which asked more probing questions. It was found that the former basis understated female and slightly overstated male unemployment.
2/ French data are for March of each year; not seasonally adjusted.
3/ German data are for April 1968, 1970 and May 1976; not seasonally adjusted.
4/ Italian data are not adjusted to U.S. concepts.
5/ 1975.
6/ Great Britain only
7/ 1971.
8/ 15-19 age group.
9/ 1974.

NOTES.—The above data have been adjusted by the Bureau of Labor Statistics to reflect United States definitions and concepts. See "Intercountry Data" for a discussion of international comparisons of labor force statistics. FREQUENCY OF REPORTING: Data updated irregularly.

SOURCE: U.S. Department of Labor, Bureau of Labor Statistics, BLS Bulletin #1979, forthcoming.

Teenagers constitute widely varying proportions of the labor force across countries. Changes in this proportion may be related to changes in the size of the total labor force.

Teenagers constituted a relatively high and rising proportion of the labor force from 1960 to 1976 in the United States and Canada--both countries experienced growth in their total labor force over that period. The opposite was true in several other countries whose total labor force declined.

Table 1.6

Teenagers as a Percent of the Civilian Labor Force in Selected OECD Countries: 1960, 1971, 1976

Country	Age	1960	1971	1976	Labor force growth rate 1960-76
Australia	15-19	14% 2/	12%	12%	0.7 2/
Canada	15-19	9 *	10	11	4.1 *
France	16-19	8 3/	6	5 3/	-1.6 3/
Germany	15-19	11	8	9	-1.2
Italy	14-19	12	8	7 4/	-4.5 4/
Japan	15-19	10	5	3	-6.7
Sweden	16-19	9 5/	6	6	-1.5 5/
United Kingdom 1/	16-19	11 5/	9	8	-1.7 5/
United States	16-19	7	9	10	3.9

* Estimate.
1/ Includes only Great Britain; 15-19 age group for 1960 and 1971.
2/ 1965 for proportion; 1965-76 for growth rate.
3/ 1963 for proportion; 1975 for proportion; 1963-75 for growth rate.
4/ 1975 for proportion; 1960-75 for growth rate.
5/ 1961 for proportion; 1961-76 for growth rate.

NOTES.--Data adjusted by the Bureau of Labor Statistics to U.S. concepts. Growth rates (percent per year) are based on the compound rate of change. See section entitled "Intercountry Data" for discussion of international comparisons of labor force statistics.

SOURCE: U.S. Department of Labor, Bureau of Labor Statistics, BLS Bulletin #1979, forthcoming.

Teenagers showed the greatest decline in labor force participation rates from 1960 to 1975.

A comparison of labor force participation rates for teenagers (15-19 year olds) and 20-24 year olds between 1960 and 1975 reveals that while, in most countries, the labor force participation rate has decreased for all youths, the amount of decline is greatest for teenagers. Only in Canada and the United States were any increases registered over the entire period.

Table 1.7

Labor Force Participation Rates for Teenagers and 20-24 Year Olds in Selected OECD Countries: 1960, 1970, 1975

Country	1960		1970		1975	
	15-19 years of age	20-24 years of age	15-19 years of age	20-24 years of age	15-19 years of age	20-24 years of age
Canada	45.7%	71.2%	40.6%	73.5%	47.4%	77.1%
France	53.3	75.1	44.0	76.2	38.1	74.7
Germany	76.4	83.5	55.5	76.2	45.0	66.9
Italy	66.5 1/	57.1	38.4 1/	53.4	30.6 1/	51.0
Japan	49.1	73.2	32.9	75.2	21.4	71.1
United Kingdom	74.8*	79.4*	62.3 3/	76.1	45.6 3/*	74.7*
United States	38.9 2/	69.1	39.9 2/	72.2	43.9 2/	74.8

* Estimate.
1/ 14-19 years of age.
2/ 16-19 years of age.
3/ Numerator refers to 16-19 year olds and denominator refers to 15-19 year olds.

NOTES.—See section entitled "Intercountry Data" for discussion of international comparisons of labor force statistics.
FREQUENCY OF REPORTING: Data updated irregularly.

SOURCE: The Organization for Economic Cooperation and Development, unpublished data, Paris, 1977.

Labor force participation rates for youths vary across countries, especially for teenagers. Rates are higher for youths age 20-24 than for teenagers and for men than for women.

In all countries shown here, labor force participation rates were higher for the 20-24 year olds than for teenagers, and higher for males than females in both age groups. The ratio of teens in the labor force to the teenage population was greatest in the United Kingdom (60.6 percent) and lowest in Japan (19.2 percent). The 20-24 year old labor force participation rates were in the 70-80 percent range except for Norway and Italy, which had lower rates. Intercountry differences in labor force participation rates may be due to fluctuations in economic activity and structural trends, such as increased schooling, migration from rural to urban areas, and changing attitudes towards the role of working women in society.

Table 1.8

Labor Force Participation Rates for Teenagers and 20-24 Year Olds by Sex in Selected OECD Countries: Various Years

Country	Year	Teenagers				20-24 year olds		
		Age	Total	Male	Female	Total	Male	Female
Canada (S.CL)	1976	15-19	49.9	52.7	47.0	76.2	85.1	67.3
Denmark (S.TL)	1976	15-19	42.6	47.6	37.3	79.6	82.0	77.1
Finland (S.TL)	1976	15-19	37.3	41.7	32.9	72.5	78.6	66.1
France (S.CL)	1977	15-19	24.1	27.2	20.9	74.2	80.9	67.5
Germany (S.TL)	1974	15-19	45.6	47.6	43.3	75.0	80.5	69.4
Ireland 1/ (S.TL)	1975	15-19	50.7	53.1	48.0	79.9	91.9	67.2
Italy (S.TL)	1973	14-19	29.2	32.8	25.5	60.5	77.0	43.8
Japan (S.TL)	1976	15-19	19.2	19.2	19.2	70.7	74.9	66.5
Netherlands (C.TL)	1975	15-19	34.3	31.1	37.5	70.7	79.7	61.1
Norway (S.TL)	1976	16-19	46.0	48.0	43.0	61.0	63.0	59.0
Sweden (S.TL)	1977	16-19	56.4	56.7	56.1	80.3	83.4	77.1
United Kingdom 2/ (S.TL)	1977	16-19	60.6	64.0	57.2	76.5	88.2	64.7
United States (S.CL)	1977	16-19	56.2	61.0	51.4	75.7	85.7	66.5

1/ The denominator is the entire labor force, the numerator contains persons who are looking for their first job after completing their education.
2/ Great Britain only.

C = Census results
S = Sample surveys
TL = Total labor force
CL = Civilian labor force

NOTES.—These data were gathered through letter correspondence with national statistical offices. Although respondents were asked to follow OECD definitions, comparability is limited. See the section entitled "Intercountry Data" for a discussion of international comparisons of labor force statistics.

SOURCE: Canada: Labour Force Survey Division, Statistics Canada, Ottawa.
Denmark: Section for Labour Force Surveys, Danmarks Statistik, Copenhagen.
Finland: Division of Labour Force Statistics, Central Statistical Office of Finland, Helsinki.
France: Delegation a l'Emploi Ministere du Travail, INSEE, Les Enquetes sur l'Emploi, March 1977.
Germany: Organization for Economic Cooperation and Development, Labor Force Statistics 1963-1974, Paris, 1976.
Ireland: Central Statistics Office, Dublin.
Italy: Organization for Economic Cooperation and Development, Labor Force Statistics 1963-1974, Paris, 1976.
Japan: Bureau of Statistics, Office of the Prime Minister, Annual Report on the Labour Force Survey for 1976, Tokyo.
Netherlands: Netherlands Central Bureau of Statistics, Voorburg.
Norway: Division of Employment, Regional and Environmental Statistics, Central Bureau of Statistics of Norway, Oslo.
Sweden: National Central Bureau of Statistics, Stockholm.
United Kingdom: Department of Employment, Gazette, June 1977, London.
United States: Bureau of Labor Statistics, unpublished data.

In the United States, young people who are not in school have been increasingly likely since 1960 to join the labor force.

The labor force participation rate of young people aged 16-24 who are not enrolled in school rose from 68.9 percent in 1960 to 77.8 percent in 1975. Their unemployment rate peaked at 14.8 percent in 1975. The number of young people who are not in school has remained proportionately constant since 1965.

Table 1.9

Labor Force Participation Rate and Unemployment Rate of 16-24 Year Olds Not Enrolled in School in the United States: 1960, 1965, 1970, 1975

Year	Labor force participation rate 1/	Unemployment rate 2/	Number of 16-24 year olds not enrolled in school (percent of population aged 16-24)
1960	68.9%	10.0%	62.4%
1965	70.4	7.6	55.9
1970	73.1	10.9	55.0
1975	77.8	14.9	56.0

1/ Percent of civilian non-institutional population in the labor force.
2/ Percent of labor force who were unemployed.

NOTES.—The figures are based on supplementary questions in the October 1973 Current Population Survey, conducted and tabulated for the Bureau of Labor Statistics by the Bureau of the Census. The data refer to the calendar week ending October 13, of the year reported. All members of the Armed Forces and inmates of institutions are excluded.

Because the estimates are based on a sample, they may differ from the figures that would have been obtained from a complete census. Sampling variability may be relatively large in cases where the numbers are small. Small estimates, or differences between estimates, should be interpreted with caution.

FREQUENCY OF REPORTING: Annual.

SOURCE: U.S. Department of Labor, Bureau of Labor Statistics, Monthly Labor Review, 1971, 1972, 1973, 1974, 1975.

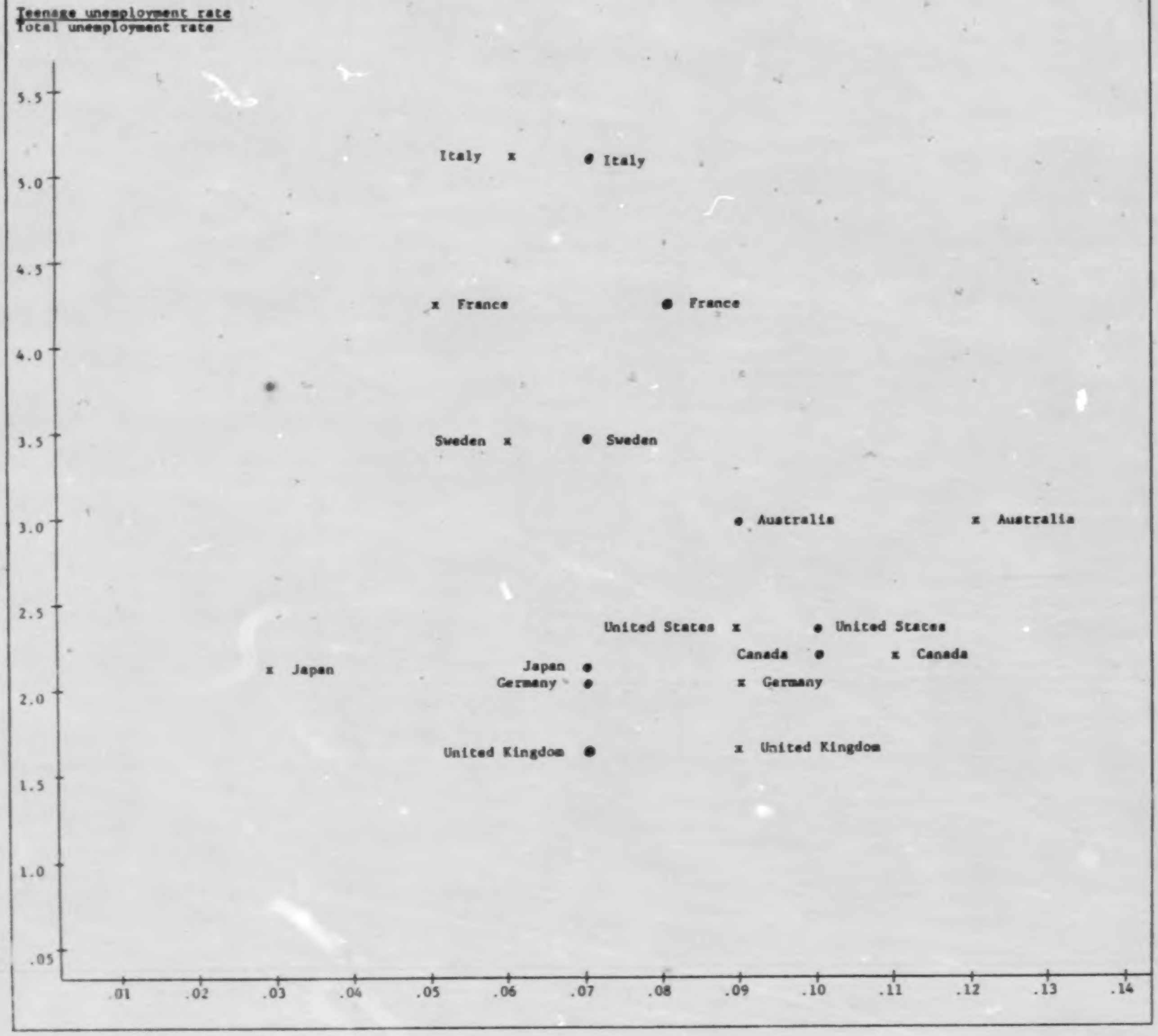
High youth unemployment is not simply a demographic phenomenon.

No clear relationship can be seen between relative numbers of young people in the population and youth unemployment rates. Likewise, no clear relationship can be seen between the supply of young workers and their unemployment rate. On the one hand, a relatively large teenage labor force might contribute to high teenage unemployment in times of deficient aggregate demand. On the other hand, a high teenage unemployment rate may discourage young people from entering the labor force. Apparently both these effects operate as shown by the chart below.

See Table 1.10

Chart 1.10

Teenage Unemployment Rate by Percent of Teenagers in the Total and Working Population in Selected OECD Countries: 1976



● Ratio of teenage population to total population

x . Ratio of teenage labor force to total labor force

Source of Data: U.S. Department of Labor, Bureau of Labor Statistics; United Nations.

Table 1.10.--Ratio of teenage to total population, civilian labor force and unemployment rate in selected OECD countries: 1976

Country	Date	Population (thousands)			Civilian labor force (thousands)			Unemployment rate		
		Total	15-19	15-19 / Total	Total	15-19	15-19 / Total	Total	15-19	15-19 / Total
Canada	June 1975	22,800	2,319	.10	10,308	1,147	.11	7.1%	15.8%	2.23
Australia	June 1974	13,338	1,191	.09	6,075	707	.12	4.4	13.1	2.98
Japan	Oct. 1975	111,934	7,904	.07	53,100	1,460	.03	2.0	4.1	2.05
France	July 1972	51,703	4,140	.08	21,980 1/	1,122 2/3/	.05	3.8 2/	16.1 2/3/	4.24
Germany	July 1975	61,829	4,520	.07	25,400	2,345	.09	3.6	7.2	2.00
Italy	Jan. 1974	55,180	3,975	.07	19,650 2/4/	1,252 2/4/5/	.06	3.3 2/4/	16.8 2/4/5/	5.09
Sweden	July 1975	8,193	536	.07	4,149	248 3/	.06	1.6	5.5 3/	3.44
United Kingdom 6/	June 1975	54,425	3,991	.07	25,140 7/	2,304 3/7/	.09	2.8 1/	4.5 1/8/	1.61
United States	July 1976	214,649	21,165	.10	94,773	8,968 3/	.09	7.7	19.0 3/	2.47

1/ 1974.
2/ 1975.
3/ 16-19.
4/ Not adjusted to United States concepts.
5/ 14-19.
6/ Great Britain only.
7/ Preliminary estimates based on incomplete data.
8/ 16-24.

NOTES.—Labor force unemployment data have been adjusted to United States concepts. See section entitled "Intercountry Data" for a discussion of international comparisons of labor force statistics.

SOURCE: United Nations, Demographic Yearbook 1976, New York, 1977; U.S. Department of Labor, Bureau of Labor Statistics, unpublished data, and BLS Bulletin #1979, forthcoming.

Teenagers are expected to constitute a smaller share of the workforce in 1980 than in 1976.

The participation of teenagers in the labor force is expected to decline on the average 19.7 percent from 1970 to 1980. The smallest decrease is projected for Germany (6.3 percent) while the largest declines are anticipated for the Netherlands (50.6 percent), Sweden (27.5 percent), Denmark (26.5 percent) and the United Kingdom (21.3 percent). These declines in participation rates combine with small decreases in the proportion of the population accounted for by teenagers in 1980 to produce decreases in the proportion of the workforce projected to be teenagers in 1980. The exception is Germany, where an increase in teenage population will result in a relatively larger teenage workforce in 1980.

Table 1.11

The Relationship of Teenagers to the Total and Working Population in Selected OECD Countries: 1970, 1980

Country	1970			1980 projections			Projected change, 1970-1980		
	Teenagers as a percent of total population	Working teenagers as a percent of working population	Teenage activity rate	Teenagers as a percent of total population	Working teenagers as a percent of working population	Teenage activity rate	Teenagers as a percent of total population	Working teenagers as a percent of working population	Teenage activity rate
Belgium	7.5%	8.1%	44.0%	8.0%	7.2%	37.5%	7.5%	8.1%	44.0%
Denmark	NA	NA	46.0	NA	NA	33.8	NA	NA	46.0
Finland	9.4	7.4	NA	9.0	3.5	NA	9.4	7.4	NA
France	8.5	8.4	43.0	7.8	6.2	34.2	8.5	8.4	43.0
Germany	6.5	9.5	63.0	8.1	11.0	59.0	6.5	9.5	63.0
Italy	7.3	7.8	40.1	7.7	6.8	33.0	7.3	7.8	40.1
Japan	8.8	7.7	45.0	6.9	5.5	40.0	8.8	7.7	45.0
Netherlands	8.5	11.6	53.0	8.3	6.4	26.2	8.5	11.6	53.0
Sweden	6.9	5.8	40.0	6.6	4.1	29.0	6.9	5.8	40.0
Switzerland	NA	NA	60.5	NA	NA	55.0	NA	NA	60.5
United Kingdom	6.9	9.5	63.5	8.0	9.0	50.0	6.9	9.5	63.5
United States	9.1	8.7	50.7	9.0	8.3	44.8	9.1	8.7	50.7

NOTES.—The OECD has compiled these figures from raw data available in Demographic Trends 1970-1985.

The projections for 1980 are based on the replies to a questionnaire drawn up by a Group of Experts from the OECD. The projections are based on a number of "working assumptions regarding trends of fertility, mortality, migration and activity rates." Also, the basis for these projections was the general population censuses of 1960-61. The results of the 1970-71 censuses were not available and projections could not be revised to take into account the new data. Information for 1970 data was estimated or supplemented by the 1960-61 census also.

FREQUENCY OF REPORTING: One-time study.

OTHER SIMILAR DATA: Demographic Trends 1970-1985 in OECD Member Countries, OECD, Paris, 1974.

SOURCE: Organization for Economic Cooperation and Development, Beyond Compulsory Schooling, Paris, 1976.

SECTION TWO: EMPLOYMENT OF YOUTHS; WHO HIRES YOUTHS?

Section One presented statistics on unemployment of youths in some industrialized nations. In this section, we turn the question about and seek to identify the characteristics of employment available to youths.

Are youths employed mainly by certain industries and for certain occupations in industrialized nations? Or do young persons find employment over the range of available public and private jobs? In the United States, youths tend to find work in the construction and service trades and retailing, generally in low paid, semi-skilled or unskilled employment. Is there a similar concentration of jobs for young persons in Europe? Or does the larger number of apprenticeships in many countries mean less concentration of types of employment? Is there a broader base of job opportunities in Europe that permits youths to have greater prospects for advancement in a career path?

Industry and occupation are factors in youth employment. Are the types of industries and occupations where youths find jobs growing or are they on the decline? Employment prospects are likely to be more favorable for the growth industries.

Other aspects of the youth job market help to describe the way in which the market works. Are there differences across countries in patterns for training on-the-job and hence for the future outlook for employment prospects? What is the significance of these differences? Some jobs lend themselves to apprenticeships and to vocational education, or to less organized training programs carried out by employers. There are differences between these characteristics of employment for young men and women with a larger share of young women in service-type employment.

Characteristics of jobs also relate to hours of work and working conditions. Are youths in jobs that are subject to controls on hours of work and overtime pay? Are youths in low paying jobs exposed to hazardous tasks? Job hazards and hours of employment, when subject to government regulation, add to industry's cost of doing business, lower incentives for job creation and, in particular, contribute to the disincentives for youth employment. Data bearing on these questions and those above are presented in this section (and to some extent in Section 6).

Available data do not provide the statistics required to fully understand the characteristics of the youth job market. Among further comparative data needs are these:

- employment by years of education
- youths (in and out of school) in part-time employment

- youths not in school and not in the labor market
- employment by size of firms
- on-the-job training programs and expenditures by employers for such training
- concentration of employment of youths by detailed occupation and sex
- average period elapsing prior to promotion by age, sex and occupation
- turnover rates in jobs, by age, sex and years of education
- wage rates of youths and of all workers by industry and years of schooling.

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Youths are more predominant in some industries than others.

Although strict comparisons of youth employment by industry are not possible due to differences in definitions of industry and occupation from country to country, broad similarities and contrasts can be noted.

Three industry groups maintain a high percentage of youth employment in the four countries surveyed. They are: manufacturing, wholesale and retail trade, restaurants and hotels and community, social and personal services.

For teenagers, the wholesale and retail trade industry is proportionately the largest employer in the United States and Canada while manufacturing is proportionately the leading industry for this age group in Japan and Sweden. Teenage women are most heavily represented in the service fields in all countries.

The manufacturing industry holds the most 20-24 year old employees percentagewise in all countries. As with teenagers, relatively more women were employed in services than elsewhere.

Table 2.1

Employment of Youths by Industry in Selected OECD Countries: 1976

(Percentage distribution)

Industry	Age	Canada		Japan		Sweden 1/2/		United States 1/2/	
		Male	Female	Male	Female	Male	Female	Male	Female
Agriculture, hunting, forestry and fishing	15-19 20-24	12.5% 5.6	3.7% 1.2	6.8% 4.1	2.8% 2.9	6.9% 5.8	2.5% 1.5	8.2% 4.5	2.1% 1.0
Mining and quarrying	15-19 20-24	1.0 2.5	-- --	-- 0.3	-- --	¦	¦	0.6 1.6	0.1 0.2
Manufacturing	15-19 20-24	19.6 25.7	10.9 14.2	28.8 28.5	33.3 23.7	38.7 38.6	15.1 17.2	17.0 27.0	11.0 16.8
Electricity, gas and water	15-19 20-24	-- 1.6	-- 0.6	1.4 0.9	-- 0.7	¦	¦	1.0 2.2	0.7 2.2
Construction	15-19 20-24	8.4 11.0	-- 1.0	15.1 13.2	1.4 2.5	11.8 11.2	0.9 1.3	9.1 11.5	0.7 0.9
Wholesale and retail trade, restaurants and hotels	15-19 20-24	30.1 19.5	27.6 15.8	21.9 21.9	27.8 28.0	18.7 15.0	27.4 15.6	42.7 24.8	48.5 25.2
Transport, storage and communications	15-19 20-24	5.1 9.7	3.2 5.4	6.8 7.2	2.8 3.2	8.1 8.4	3.9 4.4	2.3 4.4	0.8 1.4
Finance, insurance, real estate, etc.	15-19 20-24	1.2 2.9	7.8 13.1	1.4 3.1	11.1 9.7	2.9 4.7	3.8 6.9	1.5 3.1	6.3 10.0
Community, social and personal services	15-19 20-24	18.5 14.8	40.3 40.2	17.8 20.7	18.1 29.0	12.8 16.2	46.9 53.3	16.1 17.5	27.7 38.1
Other (not adequately defined)	15-19 20-24	3.2 6.7	5.2 8.1	-- 0.3	-- 0.4	0.1 0.1	-- --	1.4 3/ 3.4 3/	2.1 3/ 4.1 3/

1/ 16-19 years.
2/ 1977.
3/ Public administration.

NOTES.—Data for this table were compiled from national sources. Intercountry comparisons are cautioned. Figures represent not only differences in youth employment patterns, but also differences in the structures of the economies of the countries. See Table 2.1A for data for the United Kingdom, whose industrial categories in published national data cannot be compared to other countries.

SOURCE:
Canada: Statistics Canada, Labour Force Survey division, Ottawa.
Japan: Annual Report on the Labour Force Survey for 1976, Bureau of Statistics, Office of the Prime Minister, Tokyo.
Sweden: Letter correspondence with the National Central Bureau of Statistics, Stockholm.
United States: U.S. Department of Labor, Bureau of Labor Statistics, unpublished data.

Table 2.1A.--Employment of youths by industry in Great Britain: 1971, 1976

(Percentage distribution)

	1971 1/		1976 2/	
	Male	Female	Male	Female
Basic industries	5.8%	0.8%	6.0%	1.3%
Manufacturing	38.4	35.0	35.1	32.4
Construction	12.3	1.1	17.6	1.6
Gas, electricity, water	1.5	0.6	1.5	0.7
Distribution, transport and communication	18.3	24.6	20.3	25.1
Insurance, banking, finance	2.3	10.0	4.0	10.7
Professional and scientific services	2.8	9.9	2.3	8.5
Miscellaneous services	10.2	11.8	7.9	11.9
Public administration and defense	7.0	4.6	5.2	7.8

1/ 1971 Census: 15-19 year olds.

2/ 1976 survey of 3,000 young people aged 16-19 by the Working Party set up by The Manpower Services Commission to consider the feasibility of training, job creation programs, or work experience for 16-18 year olds who have no job and who are not engaged in further or higher education.

NOTES.—Information released by the Manpower Services Commission indicates that the industrial and occupational distributions of youths seem to have been seriously altered only once in the past decade. This occurred with the raising of the school leaving age in 1973-74. After this time period, the distributions tended to move back towards the distributions which existed before the disturbance.
FREQUENCY OF REPORTING: One time-study.

SOURCE: Manpower Services Commission, Young People and Work, London, 1977.

In the United States, the structure of employment for young people has undergone noticeable change since 1969.

Since 1969, the percentage of youths employed in white-collar jobs has declined, while the percentage of youths employed as service workers has risen dramatically. The school enrollment status and age of a young person affects the kind of job he has.

A young person who was not enrolled in school was more likely than a student to be a blue-collar worker. Students were generally more likely to be white-collar or service workers. Of those who were enrolled in school, a white-collar worker was more likely to be 20-24 years old while a blue-collar or service worker was more likely to be a teenager. For a young person not enrolled in school, the chances were about the same that he would be a blue-collar worker whether he was a teenager or older youth.

Table 2.2

Occupation of Employed Persons 16-24 Years Old in the United States: 1969, 1973, 1976

(Percentage distribution)

	Enrolled in school						Not enrolled in school					
	16-24			20-24			16-24			20-24		
	1969	1973	1976	1969	1973	1976	1969	1973	1976 1/	1969	1973	1976
White collar	46.2%	40.5%	41.7%	68.3%	61.2%	57.2%	46.5%	42.5%	31.3%	48.7%	45.6%	NA
Professional, technical	12.8	9.3	8.7	31.9	22.9	20.2	10.1	9.3	1.6	12.8	11.6	NA
Managers, administrators	1.5	1.4	2.0	3.6	3.3	4.4	3.3	3.9	2.4	4.1	4.7	NA
Sales	10.9	10.1	10.3	8.1	8.8	7.6	4.4	4.9	5.5	4.1	4.7	NA
Clerical	21.0	19.7	20.7	24.7	26.2	25.0	28.7	24.4	21.8	27.7	24.6	NA
Blue-collar	26.0	28.0	23.3	19.1	21.1	20.2	40.8	42.5	46.3	39.0	40.9	NA
Craftsmen, foremen	3.6	4.5	4.1	5.8	6.9	6.6	9.4	11.6	11.8	10.5	12.2	NA
Operatives	11.4	10.9	8.7	9.0	8.0	8.3	23.5	22.1	20.7	23.0	21.4	NA
Laborers	11.0	12.6	10.5	4.3	6.2	5.3	6.9	8.8	13.8	5.5	7.3	NA
Service workers	23.8	27.7	31.4	11.5	16.9	21.5	11.3	12.4	18.9	10.3	11.3	NA
Private household	5.2	3.7	NA	0.4	0.8	NA	1.3	1.2	NA	1.0	1.0	NA
Other	18.6	24.0	NA	11.1	16.1	NA	10.0	11.2	NA	9.3	10.3	NA
Farm workers	3.9	3.8	3.6	1.0	0.6	1.1	2.4	2.6	3.3	2.1	2.3	NA

1/ These data include those who graduated from high school in 1975 and 1976 and those dropouts who last attended school in 1975 and 1976.

NOTES.—The 1976 data have been calculated from unpublished data obtained from the U.S. Bureau of Labor Statistics. Due to differences in the method of aggregation for those not enrolled in school, the 1976 data in this category should be interpreted with caution.

School enrollment refers to actual enrollment at any time during the school year in day or night school in any type of public, parochial or other private school in the regular school system. Such schools include elementary schools, junior or senior high schools and colleges or universities. Persons enrolled in special schools not in the regular school system, such as trade schools or business colleges, are not included in the enrollment figures. Persons enrolled in classes which do not require physical presence in school, such as correspondence courses or other courses of independent study and training courses given directly on the job, are not reported as enrolled in school.

For the definition of employed persons, see the section entitled "Intercountry Data."

The age classification is based on the age of the person at their last birthday.

The data on occupation, industry and class of worker refer to the job held for the longest period of time during the year. Persons who held two or more jobs are reported in the job in which they worked the greatest number of weeks. The occupation and industry categories used here are those used in the 1970 Census of Population.

FREQUENCY OF REPORTING: Data updated irregularly.

SOURCE: U.S. Department of Labor, Bureau of Labor Statistics, Special Labor Force Reports for 1969 and 1973: Employment of School Age Youth; 1976 data derived from unpublished statistics.

In 1970, there were significant inequalities in youth employment by profession and hiring practices in the United States.

Young Americans were more likely to be employed in some occupations than others. In 1970, workers under age 25 were overrepresented among clerical, sales, service workers and laborers. They were least likely to be employed as managers, compared to those over age 25.

A large percentage of establishments in a sample of United States cities maintained a practice of refusing to hire youths under 20 years of age for full-time positions.

Table 2.3

Employer Hiring Practices of Youths in the United States: 1970

Index of inequality by age for occupations

	Numbers employed All ages (thousands)	Numbers employed Under 25 (thousands)	Index of inequality 1/
Professionals	7,308	963	62
Semiprofessionals and technicians	4,439	706	77
Managers	8,000	408	22
Office clericals	6,381	1,948	113
Non-office clericals	5,914	1,702	179
Sales workers	4,920	1,068	165
Craftsmen	8,677	1,206	65
Operatives	12,646	2,393	95
Laborers	4,114	1,[illegible]	206
Service workers	8,276	2,164	144

Percent of establishments not hiring those under 20 for full-time jobs

Town	Office jobs	Nonoffice jobs
Atlanta	64	60
Detroit	46	60
Cleveland	45	48
Baltimore	66	70
Milwaukee	51	55
Los Angeles	61	66
Battle Creek	61	76
Auburn	49	65
Galveston	48	55
El Paso	55	63

Percent of employers not wanting to hire persons under 21 for "career" jobs

Jobs	St. Louis	New York City
Bank teller	90	30
Cashier	94	78
Hotel clerk	100	80
Shipping clerk	70	19
Arc welder	90	49
Press feeder	47	25
Prod. machine operator	82	28
Wire worker	85	40
Orderly	66	85

1/ The percentage of employed who were less than 25 years of age in a particular sector divided by the percentage of employed who were greater than 25 years of age in that sector.

NOTES.—These figures for employer hiring practices represent only a sample of cities and employers, and should be used only as an illustration of youth employment problems rather than as a definitive set of statistics.
FREQUENCY OF REPORTING: One-time study.
OTHER SIMILAR DATA: Youth Unemployment and Minimum Wages, Thomas Ganett, et al., U.S. Bureau of Labor Statistics, 1970; Industry Hiring Requirements and Employment of Disadvantaged Groups, Daniel Diamond and Hrach Bedrosian, New York University School of Commerce, 1970.

SOURCE: Organization for Economic Cooperation and Development, Entry of Young People into Working Life, Paris, 1976; National Commission for Manpower Policy, From School to Work: Improving the Transition, Washington, D.C., 1976.

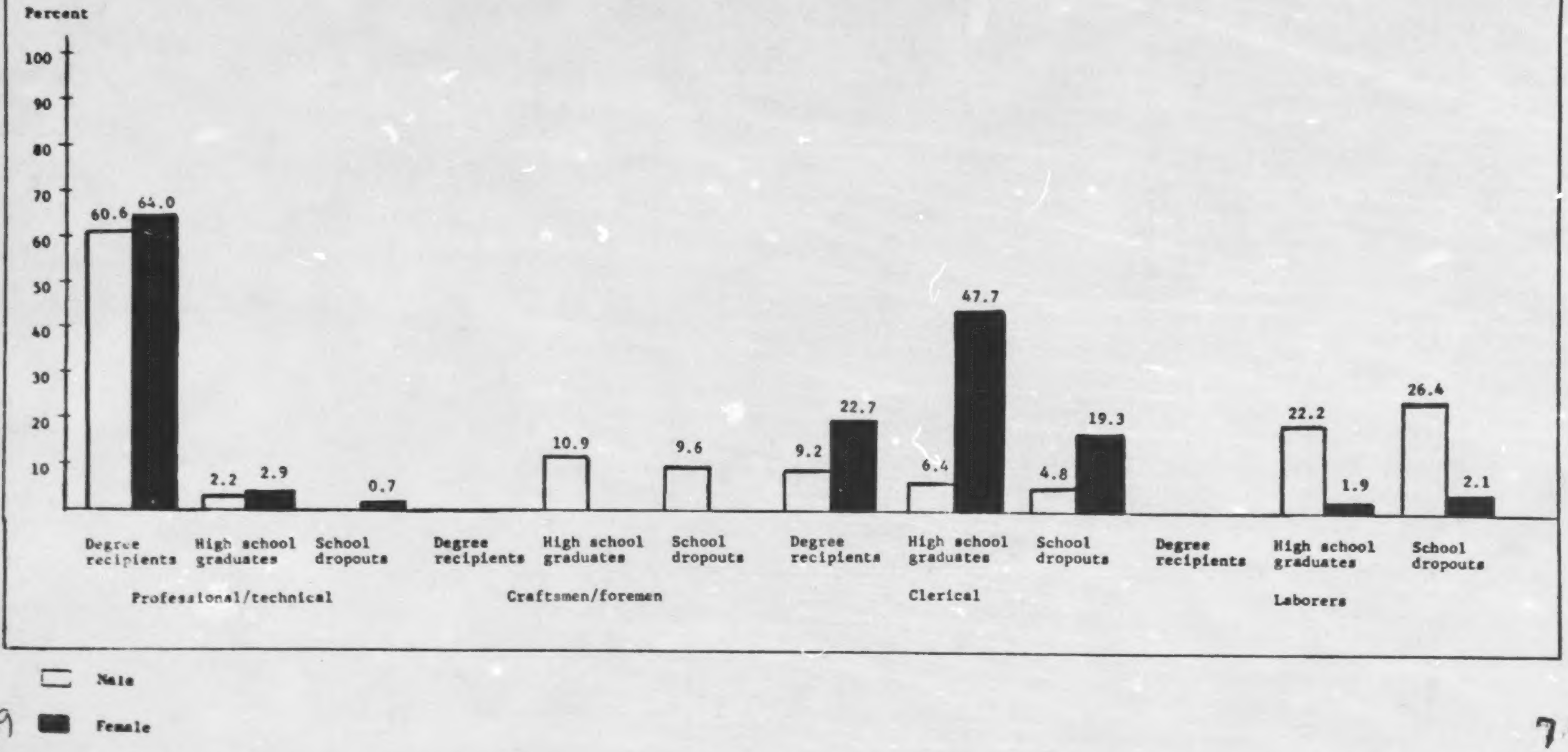
The first jobs held by American youths were closely related to their level of education.

The majority of college graduates got their first jobs in professional, technical and other skilled areas while most high school graduates and high school dropouts were hired-in as laborers or in service jobs. Although the distribution of young people by occupational categories is affected by educational attainment, there is a gap even among degree recipients between the level of educational attainment and that of the job actually held.

See Table 2.4

Chart 2.4

Selected First Jobs Held in October 1971 by Employed 1973 School Dropouts, High School Graduates and Degree Recipients in the United States



Source of Data: OECD.

Table 2.4.--First jobs held in October 1971 by employed 1973 high school dropouts, high school graduates and degree recipients in the United States

Occupational groups	Degree recipients		High school graduates		High school dropouts	
	Male	Female	Male	Female	Male	Female
Professional/technical	60.6%	64.0%	2.2%	2.9%	--	0.7%
Managers/administrators	3.3	1.3	1.8	0.7	0.8%	--
Sales	11.0	3.8	5.8	7.4	5.6	5.0
Clerical and kindred	9.2	22.7	6.4	47.7	4.8	19.3
Service	3.5	6.4	12.0	16.4	10.4	25.0
Craftsmen/foremen	--	--	10.9	--	9.6	--
Operatives	12.5	1.8	32.8	17.1	33.6	24.3
Laborers	--	--	22.2	1.9	26.4	2.1
Farm workers	--	--	6.0	1.7	8.8	7.9
Private household	--	--	--	4.3	--	15.7
Total	100.0	100.0	100.0	100.0	100.0	100.0

NOTES.--FREQUENCY OF REPORTING: One-time study.
OTHER SIMILAR DATA: "The Place of the Occupational Component in Education and Training," Beatrice G. Reubens, 1975.

SOURCE: Organization for Economic Cooperation and Development, Entry of Young People into Working Life, Paris, 1976.

The percentage of youths aged 16 to 21 in the United States who have work experience has not changed much since 1970, nor has the distribution between full- and part-time work experience.

Those youths currently in school who had worked the previous year tended to have part-time jobs for a relatively short period of time. Those youths who were not in school who had worked in the previous year tended to have been employed full-time for a longer duration.

Table 2.5

Work Experience of Youths Aged 16-21 in Previous Year by Major Activity in Current Year in the United States: 1970, 1974, 1976

	Total percent with work experience in previous year			Those in school in given year by work experience in previous year			Those with a major activity other than school in given year by work experience in previous year		
Work experience	1970	1974	1976	1970	1974	1976	1970	1974	1976
Worked last year	71.0%	71.8%	68.3%	63.5%	61.0%	57.1%	81.0%	82.4%	80.0%
Did not work last year	29.0	28.2	31.7	36.5	38.9	42.9	19.0	17.5	20.0
Worked last year:	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Full-time	52.8	52.6	53.2	33.0	30.0	31.8	73.8	69.4	69.2
50-52 weeks	15.3	18.8	18.4	1.8	1.8	2.3	29.5	31.4	30.5
27-49 weeks	10.3	10.4	11.3	2.4	2.5	3.2	18.7	16.2	17.3
14-26 weeks	9.6	9.2	9.3	5.7	5.7	6.2	13.7	11.8	11.6
1-13 weeks	17.6	14.3	14.2	23.1	20.1	20.1	11.8	9.9	9.8
Part-time	47.2	47.4	46.8	67.0	70.0	68.2	26.2	30.6	30.8
50-52 weeks	13.1	12.6	12.3	17.7	16.0	15.8	8.3	10.1	9.7
27-49 weeks	9.8	10.0	10.2	12.8	14.3	14.6	6.6	6.8	6.9
14-26 weeks	9.4	10.5	9.9	13.2	14.9	13.4	5.4	7.2	7.2
1-13 weeks	14.9	14.3	14.5	23.3	24.7	24.3	6.0	6.5	7.0

NOTES.—Persons with work experience are those who worked as civilians at any time during the year at full-time or part-time jobs.

Persons are classified as having worked at full-time jobs if they worked 35 hours or more per week in a majority of weeks worked during the year. Persons are classified as having worked at part-time jobs if they worked 1 to 34 hours per week in a majority of weeks worked during the year.

The proportion of the population who worked and the total number of weeks worked during the year indicate the extent of employment. Persons with work experience are classified according to the number of weeks in which they did work during the year as civilians for pay or profit (including paid vacations and sick leave) or worked without pay on a family operated farm or business.

FREQUENCY OF REPORTING: Annual.

SOURCE: U.S. Department of Labor, Bureau of Labor Statistics, Special Labor Force Report, Work Experience of the Population, Washington, D.C., 1977.

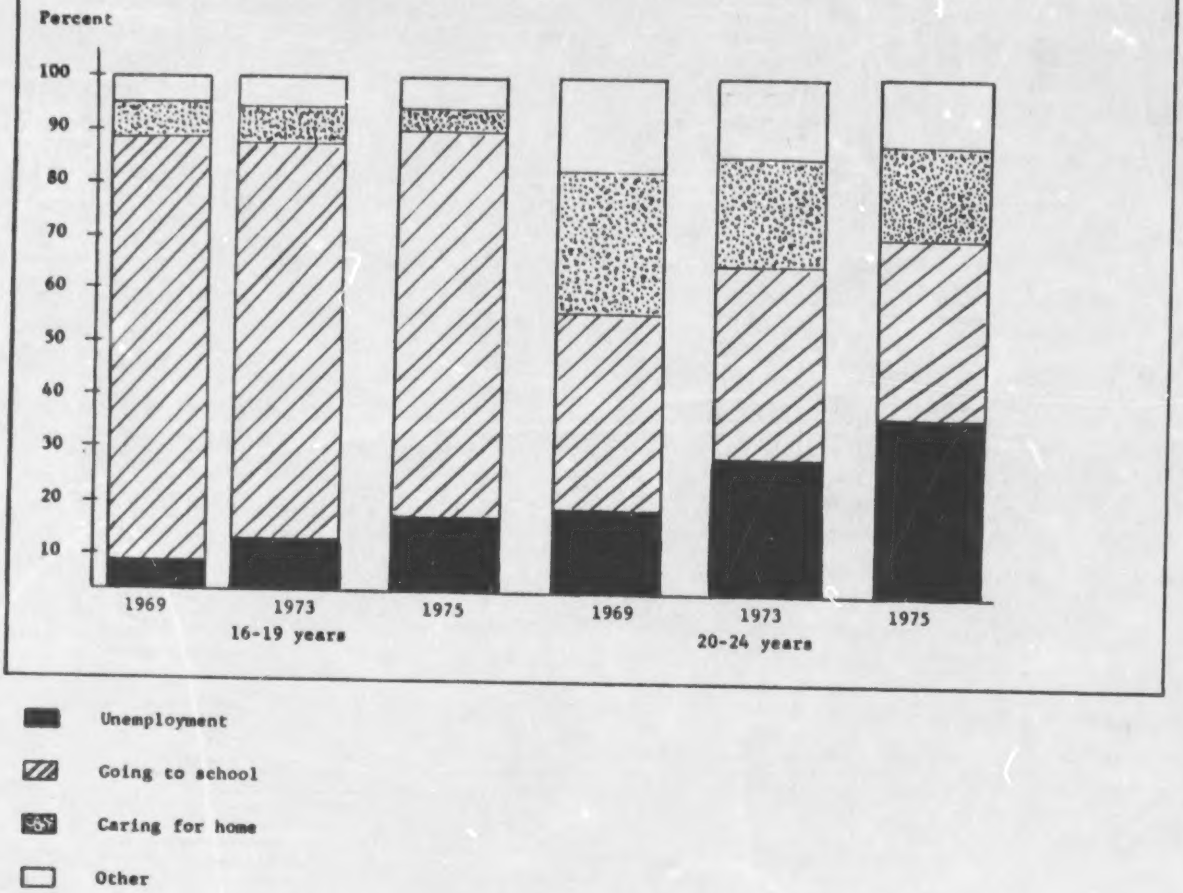
Unemployment has become the most common reason for part-year work among youths in the United States.

From 1969 to 1975, unemployment moved from the third to the first most frequently cited reason for part-year work among young people aged 16-24 and aged 20-24. In 1975, inability to find work accounted for one reason out of three for part-year work. Only among teenagers was going to school a more important reason.

See Table 2.6

Chart 2.6

Major Reasons for Part-Year Work Among Youths in the United States: 1969, 1973, 1975



Source of Data: U.S. Department of Labor

Table 2.6.-- Major reasons for part-year work among youths in the United States: 1969, 1973, 1975

(Percentage distribution)

	16 years and over			16-19 years			20-24 years		
	1969	1973	1975	1969	1973	1975	1969	1973	1975
Total part-year workers	33,399	36,022	38,606	7,247	7,941	7,775	6,561	7,475	8,052
Percent distribution	100%	100%	100%	22%	22%	20%	20%	21%	21%
Persons who worked only part of the year because of: (Percent distribution)									
Unemployment	18	23	33	9	13	17	19	28	38
Illness/disability	12	11	8	2	2	1	5	4	3
Caring for home	29	26	23	6	6	4	26	20	16
Going to school	26	26	23	79	74	72	37	36	33
Retirement	3	4	3	0	0	0	0	0	0
Armed forces	2	1	1	0	0	0	6	2	1
Other	9	10	9	4	6	6	8	10	9
Total	100	100	100	100	100	100	100	100	100

NOTES.—Data have been calculated from figures presented in the source material. Part-year workers are persons who worked either full-time or part-time for 1 to 49 weeks.

Part-year workers are classified by main reason for part-year work on the basis of what they were doing most of the weeks in which they did not work.

FREQUENCY OF REPORTING: Annual.

SOURCE: U.S. Department of Labor, Bureau of Labor Statistics; Special Labor Force Report, Work Experience of the Population, Washington, D.C., 1977.

Duration of youth unemployment is generally short-term but lengthening.

The duration of unemployment for youths is lengthening in several countries. For example, data for the United Kingdom show an increase in the median duration of weeks from 3.0 in January 1970 to 9.8 in January 1976 for males under 18 and from 2.7 to 9.8 for females under 18. This increase was faster than that for adults. In the United States, about 30 percent of teenage unemployment lasted more than 13 weeks in 1963 but by 1976 this proportion had risen to over 35 percent.

Table 2.7

Duration of Unemployment by Age in Selected OECD Countries: Various Years

Australia (Average duration in weeks)

	Males				Females			
	15-19	20-24	25 and over	Total	15-19	20-24	25 and over	Total
May 1976	15.6	--------19.4---------------		18.2	18.4	--------15.9---------------		16.9
May 1977	16.8	15.1	21.2	18.5	19.9	18.9	15.7	18.0

Canada (Average duration in weeks)

	Age 12-24			Age 25-44	Age 45 and over
	Never worked	Other	Total	Total	Total
January-April 1977	17.2	13.8	14.0	14.9	17.5

Finland (Median duration in weeks)

	Age 15-19	Age 20-29	Age 30-44
1971	5.2	6.2	10.2
1973	7.5	6.9	10.9
1975	6.5	6.1	9.0
1976	12.3	8.9	14.5

France (Median duration in weeks)

	Youth	Adult
1975	18.0	20.0

Netherlands (Average duration in months)

	Males				Females			
	Under 19	19-24	24-64	Total	Under 19	19-24	24-64	Total
1971	1.1	1.4	2.7	2.1	NA	NA	NA	NA
1972	1.7	2.3	3.7	3.1	NA	NA	NA	NA
1973	1.5	2.1	3.7	3.0	NA	NA	NA	NA
1974	2.0	2.4	4.0	3.3	NA	NA	NA	NA
1975	2.9	3.6	5.5	4.2	3.0	3.5	4.4	3.7

United Kingdom (Median duration in weeks)

	Males				Females			
	Under 18	18-20	20-25	Total	Under 18	18-20	20-25	Total
1965 January	2.0	3.7	3.8	9.7	2.3	4.4	6.4	7.3
July	1.2	2.5	3.0	11.1	1.1	3.6	6.4	6.8
1970 January	3.0	3.2	3.9	10.9	2.7	4.9	6.0	7.5
July	1.9	3.4	4.4	11.5	1.7	3.1	4.5	6.1
1975 January	NA	NA	NA	NA	NA	NA	NA	NA
July	3.1	3.5	5.8	11.1	2.8	2.8	3.5	4.8
1976 January	9.8	11.1	12.4	16.5	9.8	10.1	10.7	11.6
July	3.7	9.5	13.5	16.2	3.5	8.5	10.8	7.5

United States (Median duration in weeks)

	Males			Females		
	16-19	20-24	Total	16-19	20-24	Total
1970 May	4.1	4.4	6.2	4.0	4.0	4.3
1973 May	4.5	5.0	7.0	3.7	4.3	4.5
1975 May	7.4	11.0	11.5	4.9	6.6	8.4
1976 May	5.5	9.3	10.5	4.5	7.7	7.4
1977 May	5.2	8.5	9.9	4.5	5.6	6.9

SOURCE:	Australia:	Australian Bureau of Statistics, The Labour Force, Cat. 62030, various issues.
	Canada:	Dominion Bureau of Statistics, Special Survey, 71.001, The Labour Force.
	Finland:	Organization for Economic Cooperation and Development Secretariat estimates from Employment Services Statistics.
	France:	Organization for Economic Cooperation and Development Secretariat estimates from data in INSEE publication, Les Enquetes sur l'Emploi, 1975.
	Netherlands:	Centraal Bureau Voor de Statistiek, De Nederlandse Jeugd, 1977.
	United Kingdom:	Department of Employment, unpublished data.
	United States:	Organization for Economic Cooperation and Development Secretariat estimates from data published in U.S. Department of Labor, Employment and Earnings, various issues.

Youths are more likely to change jobs than adults.

Similar to the relatively short (although increasing) duration of youth unemployment, the duration of youth employment, as evidenced by turnover data, is also short. These high rates of turnover for youths act as a disincentive to employers who are concerned with the possibility that the young workers may not stay with the firm long enough to justify initial training investments. Data from Australia show 23 percent of those youths employed in 1975 held more than one job, compared with 14.3 percent for persons over age 25. Data presented for France, the United Kingdom and the United States illustrate that turnover (quits, fires, hires, etc.) declines with age.

Table 2.8

Labor Turnover by Age in Selected OECD Countries: Various Years

Australia 1976 Persons employed and number of jobs held during the year

Age group	Number of jobs held					
	1	2	3	4	5	6 or more
15-19	76.9%	13.4%	4.6%	1.5%	0.6%	1.1%
20-24	71.8	18.5	5.4	2.0	1.1	1.1
25 and over	85.7	----------------14.3----------------				
Total	82.6	----------------17.4----------------				

Canada 1974 Percentage of 14-24 year olds who changed employment during the year

All workers	31.2%
Full-year workers	23.2
Part-year workers	36.5

France 1973/74 Percentage of employees who changed jobs during the year

Age group	Male	Female	Total
Under 25	31.5%	25.6%	28.7%
Over 25	16.3	14.3	15.6
Total	18.5	17.1	18.0

Japan 1974 Persons who changed jobs as a percent of all persons with a job

Age group	Male	Female
15-19	5.3%	1.1%
20-24	8.0	5.9
25-29	6.2	2.7
30-34	4.8	1.4
35-39	3.5	1.7
40-54	2.4	1.2
55-64	3.6	0.5
65 and over	1.3	0.1

United Kingdom 1973/74 Percentage of employees who had been with their employers for under 12 months

Age group	Male	Female
Under 18	57.9%	60.3%
18-20	30.3	34.7
21-24	29.9	32.4
25-29	22.9	32.7
30-39	15.8	27.5
40-49	10.6	18.9
50-59	8.4	12.2
60-64	4.5	9.5
65 and over	13.1	7.8
Total	16.2	25.3

United States 1976 Labor turnover rates 1/

	Percentage of each employed age group with more than one employer in the same year		Percentage of those with more than one employer who were unemployed between jobs
Age group	Two employers	Three or more employers	
16-17	16.0%	5.6%	37.6%
18-19	22.8	11.0	50.1
20-24	20.7	9.5	52.2
25-34	13.3	4.3	46.1
35-44	8.7	0.7	42.2
45-54	5.6	1.7	45.8
55-59	5.1	1.9	43.1
60-64	3.3	1.3	47.7
65 and over	4.0	1.8	17.1
Total	11.9	4.5	47.1

1/ Data include those persons who had more than one employer in the year 1976. It does not include those who had more than one employer simultaneously.

SOURCE:		
	Australia:	Australian Bureau of Statistics, *The Labour Force Experience*, 1976.
	Canada:	Dominion Bureau of Statistics, unpublished data, 1977.
	France:	Institut National de la Statistique Etudes Economiques, *Revue Economique et Statistique*, No. 69, July-August 1975.
	Japan:	Bureau of Statistics, *Japan Statistical Yearbook*, 1975.
	United Kingdom:	Department of Employment, *Gazette*, January 1975.
	United States:	U.S. Department of Labor, Bureau of Labor Statistics, unpublished data, 1976.

Youth participation in public employment and training programs has declined in the United States.

Since 1967, youths under 19 years of age have declined from 58 to 46 percent of the total number of participants in public employment and training programs in the United States. The situation was even worse for the youth labor force when older youths were included in the total. The percentage of those under 22 enrolled in employment and training programs has declined from 84 to 59 percent since 1967.

Table 2.9

Youth Participation in Public Employment and Training Programs in the United States: 1967, 1970, 1974

	1967	1970	1974
		(In thousands)	
First-time enrollments 1/			
Under 19	481	553	889
Under 22	700	716	1,133
Total	833	1,051	1,918
Under 19 as percent of total	58%	53%	46%
Under 22 as percent of total	84	68	59

1/ Youth enrollment in major work and training programs administered by the Department of Labor are estimated by multiplying first-time enrollments by the proportion of youth among all enrollees. There is no correction for possible double-counting.

NOTES.—This chart includes only those major manpower programs which are administered by the U.S. Department of Labor.
FREQUENCY OF REPORTING: One-time study.

SOURCE: The National Commission for Manpower Policy, From School to Work: Improving the Transition, Washington, D.C., 1976.

Since 1963, federally mandated training programs in the United States have progressed in their attempts to reach the young, the uneducated, women and the inexperienced.

In the 1960's, the institutional and on-the-job training programs sponsored by the Manpower Development and Training Act (MDTA) of 1962 increased their intake of young people and people with little education. A greater number of females were also brought into the programs, and the average participant in 1969 had less work experience than the average participant in 1963.

The Comprehensive Employment and Training Act (CETA) of 1973 consolidated most of the federal training and employment measures into one act. A summer program aimed entirely at youths was established. It is worth noting that Title 1 of CETA, the major manpower program, had 61.7 percent of its participants under 22 years of age.

Table 2.10

Percentage Distribution of Selected Characteristics of Trainees Enrolled in Training Programs Sponsored by the Federal Government in the United States: 1963, 1966, 1969, 1975

	Manpower Development and Training Act 1/						Comprehensive Employment and Training Act, 2/ fiscal year 1975			
	Institutional training			On-the-job training						
	1963	1966	1969	1963	1966	1969	Title I	Title II	Title VI	Summer youth program 3/
Trainees less than 22 years of age	25.4%	38.1%	37.5%	31.1%	39.6%	36.1%	61.7%	23.7%	21.4%	100.0%
School years completed by trainee:										
8 or less	10.7	16.3	18.8	15.6	14.2	16.5	13.3	9.4	8.4	16.6
9-11	30.0	35.7	38.8	28.7	28.7	35.0	47.6	18.3	18.2	67.5
12 or more	59.3	48.0	32.4	55.7	57.1	46.5	39.1	72.3	73.3	15.8
Sex of trainees:										
Male	63.8	58.3	55.6	80.8	72.0	65.1	54.4	65.8	70.2	56.1
Female	36.2	41.7	44.4	19.2	28.0	34.9	45.6	34.2	29.8	43.9
Years of gainful employment of trainee:										
Less than 3	22.7	39.1	45.4	34.4	42.2	45.3	NA	NA	NA	NA
3-9	45.6	37.0	33.5	38.1	34.6	32.9	NA	NA	NA	NA
10 or more	31.7	23.9	21.1	27.5	23.2	21.8	NA	NA	NA	NA

1/ "Institutional training" accounted for about 70 percent of the opportunities which existed under MDTA through 1969, while "on-the-job training" accounted for most of the remaining 30 percent. This bill was passed in 1962. It was incorporated into, and extended by, the Comprehensive Employment and Training Act in 1973.

2/ See notes for an explanation of CETA titles.

3/ Created under Title III of CETA.

NOTES.—Some of the data have been aggregated differently than it appears in the original sources.

The Comprehensive Employment and Training Act (CETA) of 1973 is designed to provide "job training and employment opportunities for economically disadvantaged, unemployed, and underemployed persons to enable them to secure self-sustaining, unsubsidized employment." It consolidated and expanded the various laws which preceded it: The Area Redevelopment Act of 1961, the Manpower Development and Training Act of 1962, the Economic Opportunity Act of 1964 and the Emergency Employment Act of 1971.

The following are the seven titles of CETA:

Title I creates a decentralized structure for the administration and implementation of manpower services.

Title II is aimed at areas of substantial unemployment, creating a program of developmental transitional public services employment.

Title III allows for special programs for special unemployed or underemployed groups (e.g., summer youth programs).

Title IV extends authorization for the Job Corps, which was originated in 1964 under the Economic Opportunity Act.

Title V creates the National Commission for Manpower Policy.

Title VI is designed for large scale temporary emergency public service employment, specifically aimed at the employment problems created by the 1974-75 economic downturn.

Title VII specifies definitions and administrative procedures.

From its inception through fiscal year 1975, the cumulative breakdown of enrollees by program type was approximately the following:

Work experience........................	40 percent
Public service employment............	24 percent
Classroom training....................	20 percent
On-the-job training..................	5 percent
Other.................................	1 percent
Total.................................	100 percent

The Youth Employment and Demonstration Projects Act of 1977 establishes a variety of employment, training and demonstration programs to deal with structural unemployment problems of American youths. No figures are available as of this writing.

FREQUENCY OF REPORTING: Annual.

SOURCE: U.S. Department of Labor, 1970 Manpower Report of the President; U.S. Department of Labor and U.S. Department of Health, Education, and Welfare, 1976 Employment and Training Report of the President, Washington, D.C., 1976.

Most Canadian public manpower training is full-time institutional skill training.

Institutional training accounted for 83 percent of public training enrollment in 1974-75 in Canada, while industrial training accounted for 17 percent. Young workers accounted for half of all enrollees in training programs.

Table 2.11

Enrollment Breakdown by Type of Training:
Canadian Manpower Training Program: 1974-75 1/

	Number	Percent of total enrollees
Institutional:		
Full-time	178,986	61.4%
Part-time	62,635	21.5
Total	241,621	82.9
Industrial	49,952	17.1
Total (all training)	291,573	100.0
Type of institutional training		
Skill training	136,135	46.7
Language training	8,396	2.9
Basic educational upgrading	50,568	17.3
Apprentice training	46,522	16.0

1/ Young workers account for approximately 50 percent of total enrollees in training programs.

NOTES.—The vast majority of all manpower training programs in Canada are sponsored by the Department of Manpower and Immigration of the federal government. There is little statistical information on youth participation by specific program. It is known, however, that 58.4 percent of all apprentices in Canada were sponsored by the Canadian Manpower Training Program in 1974-75. Of this number, 58.7 percent were under 24 years of age, but the 14 to 19 year old group represented only 6 percent of the apprenticeships sponsored by the Canadian Manpower Training Program. (Youth Unemployment in Canada: A Detailed Analysis; Ottawa: Department of Manpower and Immigration, Strategic Planning and Research Division, February 1976.)

FREQUENCY OF REPORTING: Annual.

SOURCE: Department of Manpower and Immigration, Annual Report: 1975-75, Ottawa, 1976.

In 1972-73, approximately 50 percent of all labor market training in Sweden was conducted by the National Board of Education.

Most of the labor market training courses conducted by the National Board of Education were retraining courses. About 20 percent of total labor market training was conducted within firms and 20 percent within the regular educational system. 39 percent of the trainees were under the age of 25 and about 46 percent were women.

Table 2.12

Labor Market Training in Sweden: 1972-73

Sponsors and type of course	Number of trainees	Percent
National Board of Education courses	53,064	49.7%
Adjustment courses	1,248	1.1
Beginners' courses	552	0.5
Retraining courses	47,985	45.0
In-service training courses	3,279	3.1
Courses within firms	20,336	19.1
Regional Development training	12,222	11.5
Probationary employment	555	0.5
Training for those over 50	287	0.3
Training of handicapped	711	0.7
Miscellaneous training	6,561	6.1
Courses within educational system	21,910	20.5
Miscellaneous courses (Arranged by county agricultural committees, forestry boards, educational associations, etc.)	11,387	10.7
Total 1/	106,697	100.0

1/ 45.5 percent women.
39.0 percent under age 25.

NOTES.—Swedish labor market training is sponsored entirely by the federal government and jointly organized and administered by the National Labour Market Board and the National Board of Education. Assistance to these boards is provided by various employer, employee and academic organizations.

FREQUENCY OF REPORTING: One-time study.

SOURCE: The National Swedish Board of Education, Labour Market Training: A Presentation, Stockholm, 1975.

Projections for 1977-78 training programs in Great Britain predict significant shifts.

The two major forms of training and employment programs for 16 to 18 year olds in Great Britain during 1976-77 were incentive training grants and employment subsidies. Projections for the next year estimate that incentive training grants will provide for 26 percent of the opportunities in 1978 as opposed to 36 percent in 1976-77. Employment subsidies will grow to account for 33 percent in 1978 as opposed to 26 percent in 1976-77. Finally, the work experience program will grow from 7 to 11 percent of the total opportunities.

Table 2.13

Training Programs 1/ for 16-18 Year Old Youths in Great Britain: 1976-78

	1976-77		1977-78 2/	
Type of program	Number of opportunities	Percent	Number of opportunities	Percent
Incentive training grants	42,900	36%	41,500	26%
Direct training/rehabilitation 3/	15,500	13	19,500	12
Work experience	8,000	7	15,000	11
Temporary employment 4/	21,000	18	28,500	18
Employment subsidies	30,300	26	52,400	33
Total: All schemes	117,700	100	156,900	100

1/ Sponsored by Manpower Services Commission and Department of Employment.
2/ Provisional estimate.
3/ Training Services Agency and Employment Service Agency.
4/ Job Creation Program and Community Industry Program.

NOTES.—The Manpower Services Commission and the Department of Education provide five main types of manpower training: (1) Incentive Training Grants provide for the training of young people to help meet future shortfalls of technicians, craftsmen and workers just below craft level; (2) Direct Training and Rehabilitation provided by the Training Service Agency and the Employment Service Agency; (3) Programs providing work experience are intended to help young people gain practical experience in a range of fields; (4) Programs providing temporary employment include the Job Creation Program and Community Industry. The former is a temporary employment program aimed at all ages, with about 50 percent of the participants being youths. The latter is designed to provide for the most disadvantaged and difficult-to-employ youths; and (5) Employment subsidies are offered to employers in the private sector and nationalized industries to hire youths who have been unemployed for six months or more.

In addition, training is provided by Industrial Training Boards representing 23 industrial sectors. Each Industrial Training Board supervises training activities within its own industry. These boards are financed through industry-wide levies. Statistics are not available on the age breakdown of trainees in these programs, but youth participation is generally high.

FREQUENCY OF REPORTING: One-time study.

SOURCE: Manpower Services Commission, Young People and Work, London, 1977.

More young workers with occupational training were in salaried, white-collar jobs in Germany in 1970.

In 1970, 73.3 percent of young people without occupational training were blue-collar workers and 54.4 percent of these were women. Of the 26.7 percent who were white-collar workers, 82.4 percent were women. Overall, women represented 61.8 percent of those youths without occupational training.

Of those young people with occupational training, 54.4 percent were white-collar workers and 79.8 percent of these were women. Overall, women represented 55.3 percent of the young workers with occupational training.

Table 2.14

Hourly, Blue-Collar Workers and Salaried, White-Collar Employees Under 20 Years of Age by Training and Sex in Germany: 1970

(Percentage distribution)

	All young workers and employees			Without occupational training			With occupational training		
	Hourly blue-collar workers	Salaried white-collar employees	Both	Hourly blue-collar workers	Salaried white-collar employees	Both	Hourly blue-collar workers	Salaried white-collar employees	Both
Males	58.8%	19.5%	42.0%	45.6%	17.6%	38.2%	73.7%	20.2%	44.7%
Females	41.2	80.5	58.0	54.4	82.4	61.8	26.3	79.8	55.3
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number (thousands)	658.6	495.7	1,154.2	349.7	127.1	476.8	308.4	367.2	675.6
Total percentage	57.1%	42.9%	100.0%	73.3%	26.7%	100.0%	45.6%	54.4%	100.0%

NOTES.—The numbers used in deriving these percentages were taken from the German Census of 1970.
Hourly, blue-collar workers is the translation used for "Arbeiter."
Salaried, white-collar employees is the translation used for "Angestellten."

SOURCE: Bundesanstalt für Arbeit (Federal Institution for Labor), unpublished tables, Nuremburg, Federal Republic of Germany, 1976.

SECTION THREE: MORE EDUCATION FOR MORE YOUNG PERSONS

Responsibility for providing opportunities to acquire marketable skills in the course of growing up has passed from the home to the school. Historic forces have converged to widen the distance between work and education. The transition from farming to industry and commerce as major occupations in national economies had its impact. Opportunities for learning about work while doing childhood chores were greatly reduced. Family enterprises gave way to large retail chains and manufacturing firms with a concomitant diminution of chances for a child to work and to learn while working.

Advances in knowledge and technology were contributing factors. Such advances increased physical capital requirements, calling for larger plants and farms to gain economies of scale. At the same time, more education became necessary to obtain the skills required to match the increasing complexity of producing goods and services. Responsibilities for more education for more persons fell on the formal school system with consequences that contribute to problems of youth unemployment by lengthening the period of formal schooling and isolating youths from work experience.

The social transformation of Europe gave new emphasis to upward economic and social mobility, diminishing the chances of son following in the footsteps of his father and generating new social demands for education. Educational adaptation came slowly and with much lag, partly because of the very rapidity of technological change. It was soon apparent that specific training for specific occupations might be inappropriate as preparatory. It was urged that a more general education was far more compatible when occupational structures were changing rapidly. Response in industrialized countries varied both as to the rapidity of expansion of educational opportunities, extension of periods of schooling and adaptation to perceived manpower needs.

Unemployment figures for young persons in some nations, especially the United States, cautioned against expansion of education as a way to economic prosperity. But excess workers in some occupations were accompanied through the 1960's by shortages in highly trained professions and technical trades. More recent economic trends have clearly reversed the concentration of manpower surpluses in the unskilled trades. Research has suggested furthermore that the economic payoff of education has declined.

In the decades 1950-70, educational expansion was urged because of the potential high social return from this expansion. Rates of return were calculated by comparing the net earnings of persons who completed primary, secondary and university education and relating those earnings differences as a present value of future earnings to the added cost of education. Early studies suggested rates of return to the cost of a college education in the neighborhood of 9 to 12 percent for urban white males in the United States, and this was at a time when the interest rate was less than half that level.

A major development of the 1960's, and to a lesser extent of the 1950's as well, was the enormous expansion of individual and social investments in higher education. The proportion of GNP allocated to colleges and universities in the United States jumped from 0.8 percent to 2.2 percent between 1950 and 1970; college enrollments more than tripled; the number of graduates with B.A. degrees rose by 91 percent; master's and doctorate production more than tripled. These increases in the supply of college-trained specialists notwithstanding, the ratio of the earnings of college-trained to less-educated workers was quite stable, and the rate of return to investment in higher education remained high.

Toward the end of the 1960's and the outset of the 1970's, however, the market for college graduates began to change. Employment in college-graduate-intensive industries, which had grown at an annual rate of 4.4 percent in the 1960's, grew between 1969 and 1974 at only 2.8 percent. Demand flagged for a variety of potential reasons: reduced government science spending, reduced rates of economic growth, employer disenchantment with the vocational relevance of formal education, and absolutely fewer school-age children, which hit the teacher market especially hard. (See, e.g., Freeman, Richard B., "Over-investment in College Training?" Journal of Human Resources, Summer 1975.)

As a result of these developments, by 1974 real college graduate starting salary rates in the United States were 11-25 percent below those five years earlier, and earnings relative to those of other workers were 13-27 percent below 1969 levels. The profitability of higher education investments decreased. Unemployment and underemployment increased. In general, the developments outlined above may foretell a sharply changed and reduced future role for education as a route to economic growth, with possible effects on the long-run increase in productivity and income.

In this section, data on education for young people are presented. They chronicle changes such as the lengthening period of schooling, the increased numbers of young people undertaking schooling at all levels, and the increased expenditure on education. Data are also presented on some key relationships between education and employment--on unemployment rates, earnings and occupations related to level and type of education.

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Since 1963, time spent in compulsory education has remained fairly constant in industrialized countries.

While there was a trend toward increased education in the post-World War II period, it is doubtful that compulsory education will go beyond the present average of nine years in school. The period of compulsory education has been lengthened in a few OECD member nations to raise the minimum level of learning. Reforms instituted since 1963 include changing the school leaving age from 15 to 16 in Denmark, from 14 to 16 in Norway, from 14 to 15 in Ireland, and from 15 to 16 in the United Kingdom.

Table 3.1

Duration of Compulsory Education in Selected OECD Countries: 1963, 1977

Country	Year	Begins on reaching age	Terminates on reaching age	Duration (in years)
Australia	1963	6	14-16	8-10
	1977	6	15-16	9-10
Austria	1963	6	15	9
	1977	6	15	9
Belgium	1963	6	14	8
	1977	6	14	8
Canada	1963	6-7	13-16	7-10
	1977	6	15-16	9-10
Denmark	1963	6	15	9
	1977	7	16	9
Finland	1963	7	16	9
	1977	7	16	8-9
France	1963	6	16	9
	1977	6	16	10
Germany 1/	1963	6	15	9
	1977	6	15 1/	9
Ireland 2/	1963	6	14	8
	1977	6	15	9
Italy	1963	6	15	9
	1977	6	14	8
Japan	1963	NA	NA	NA
	1977	6	15	9
Netherlands	1963	6	16	10
	1977	6	15	9
Norway	1963	7	14	7
	1977	7	16	9
Sweden	1963	7	16	9
	1977	7	16	9
Switzerland	1963	6	15-16	8-9 3/
	1977	6	15-16	8-9 3/
United Kingdom 4/	1963	5	15	10
	1977	5	16	11
United States	1963	6-8	16-18	10-12
	1977	7	16 5/	10

1/ In Germany, part-time education is compulsory until age 18.
2/ Provision is made for compulsory education on a part-time basis.
3/ In some communes, 10 years are compulsory.
4/ Refers to England and Wales.
5/ In the United States, the leaving age varies between states but 16 is the most common age.

NOTES.—In some countries, the leaving age is not uniform for the country as a whole; in those cases, an age range is shown.
FREQUENCY OF REPORTING: Data updated irregularly.
DATA ALSO AVAILABLE FOR: Greece, Iceland, Luxembourg, New Zealand, Portugal, Spain, Turkey, Yugoslavia. 1963 data available for United Nations countries.
OTHER SIMILAR DATA: Educational Statistics Yearbook, Vol. I, OECD, Paris, 1974; Entry of Young People into Working Life, OECD, Paris, 1977.

SOURCE: United Nations Educational, Scientific and Cultural Organization, UNESCO Statistical Yearbook, Paris, 1963; Organization for Economic Cooperation and Development, unpublished data, 1977.

The average length of formal education was greater than the period of compulsory education in industrialized OECD countries.

The significant variation in the average age of entry into and exit from education depends upon local customs regarding school attendance and the availability of facilities for education at the pre-compulsory and post-compulsory levels. 1974 figures reveal that the average student in developed OECD countries will receive over 12.6 years of formal schooling. In general, among those developed countries for which figures are available, Belgians and Americans will spend the most years in formal education.

Table 3.2

Average Age of Entry Into and Exit From Education in Selected OECD Countries: 1970, 1974

Country	Average age of entry into formal education		Average age of exit from formal education		Average years in formal education	
	1970	1974	1970	1974	1970	1974
Australia	5.2	5.2	17.2	17.4	12.0	12.2
Austria	4.2	NA	16.0	NA	11.8	NA
Belgium	3.1	3.1	18.0	18.7	14.9	15.6
Canada	4.9	4.8	19.0	18.9	14.1	14.1
Denmark	5.8	5.6	17.5	18.0	11.7	12.4
Finland	6.7 1/ 2/	NA	18.1 1/ 2/	NA	11.4	NA
France	3.3	3.3	17.9	17.9	14.6	14.6
Germany	6.0	6.0	16.5	NA	10.5	NA
Ireland	4.5	4.4	17.0	17.6	12.5	13.2
Italy	5.5 1/ 3/	4.1	15.6 1/ 3/	NA	10.1	NA
Japan	5.0	4.9	18.1	18.6	13.1	13.7
Netherlands	4.2	4.1	17.7	18.0	13.5	13.9
Norway	5.9	6.0	17.6	18.2	11.7	12.2
Sweden	5.8	5.7	17.7	17.6	11.9	11.9
Switzerland	5.4 1/	NA	17.5 1/	NA	12.1	NA
United Kingdom	4.7	4.5	16.9	17.5	12.2	13.0
United States	4.7	4.5	19.7	19.7	15.0	15.2

1/ Previous age groupings.
2/ 1967.
3/ 1966.

NOTES.—Data presented in this table have been compiled from two sources. Unless footnoted to the contrary, figures have been adjusted to conform with the most recent age groupings of the OECD: 3-5, 6-15, 16-18 and 19-24 years of age. Previous age groupings were 3-6, 7-14, 15-18 and 19-25 years of age. Formal education refers to education within the institutional school system.
FREQUENCY OF REPORTING: Data updated irregularly.
DATA ALSO AVAILABLE FOR: Greece, Iceland, Luxembourg, Portugal, Spain, Turkey, Yugoslavia.
OTHER SIMILAR DATA: UNESCO Statistical Yearbook.

SOURCE: Organization for Economic Cooperation and Development, Educational Statistics Yearbook, Vol. I, Paris, 1974, and unpublished data, 1977.

A trend of lengthening formal education is clearly evidenced in developed OECD member nations.

The impact of lengthening periods of education is revealed by a comparison of the average years of schooling received in total and by young versus old age cohorts. These differences are proportionately greater at higher educational levels. The average change in the total years for all the countries considered was 2.3 years.

Table 3.3

Change in Average Years of Formal Education Experienced by the Population 25-34 and 65-74 Years of Age in Selected OECD Countries: Various Years

	25-34 years of age					65-74 years of age					
Country	Year	Average of total years of education received	Primary	Secondary	Higher	Year	Average of total years	Primary	Secondary	Higher	Change in total
Belgium	*1971 1/	11.3	6.0	4.3	0.93	1971 5/	8.5	6.0	2.3	0.23	2.8
Canada	*1971	11.0	5.8	4.7	0.52 2/	1971	8.1	5.4	2.5	0.10 2/	2.9
Denmark	*1971 1/	10.2	5.0	4.5	0.64	1971 5/	8.6	5.0	3.4	0.12	1.6
France	1968	10.1	5.0	4.6	0.53	1968	7.9	5.0	2.8	0.14	2.2
Germany	*1970	9.4	4.0	5.2	0.21	1970 6/	8.0	4.0	3.9	0.11	1.4
Ireland	1966	9.8	6.0	3.3	0.47	1966	8.8	6.0	2.6	0.23	1.0
Italy	*1971	7.9	4.6	3.0	0.28 2/	1971	4.6	3.6	1.0	0.09 2/	3.3
Japan	1970	11.1	6.0	4.7	0.49	1970 6/	7.4	5.7	1.5	0.13	3.7
Netherlands	*1970 3/	9.7	6.0	3.1	0.54	1970 3/	7.3	6.0	1.1	0.22	2.4
Norway	*1970	9.6	7.0	2.1	0.51	1970 5/	7.9	7.0	0.7	0.14	1.7
Sweden	1967	9.6	6.0	3.0	0.53 4/	1967 3/	6.8	5.9	0.8	0.11 2/	2.8
United Kingdom	*1971 3/	11.0	6.0	4.6	0.37	1971	9.3	6.0	3.2	0.12	1.7
United States	1970	12.0	5.9	5.1	0.98	1970	8.9	5.5	3.0	0.41	3.1

* Estimates (census or survey data supplemented by estimates).
1/ Age group 20-29.
2/ Excludes non-university higher education.
3/ Active population.
4/ Age group 25-29.
5/ Age group 60-69.
6/ Age group 65 and over.

NOTES.—The information for this table was derived from national censuses and surveys. For 11 OECD countries, data were available from the 1960 round of censuses, and for Germany and Denmark, from surveys in the early 1960's. For eight countries, data were available from censuses or surveys around 1970. This table, which presents data for around the year 1970, is, therefore, based partly on estimation. The procedure for deriving estimates of the education attainment of the population aged 25-74 in earlier or later years is based on the technique of moving age-cohorts back or forward in time by 10-year intervals from the census or survey data for 1960 and 1970.

Linear interpolation between the level of educational attainment shown for the 25-34 year olds in the latest census available and that implied by current data on enrollment in education by age-group was used to derive the average years of education by level of education received by the age-cohort 25-34 in 1970. The age-cohort aged 25-34 in 1960 received their secondary education around 1945; the same cohort in 1970 received their secondary education around 1955. The amount of secondary education being received in 1970 is derived from enrollment data. Linear growth in education at secondary level between 1945 and 1970 was assumed, thus deriving the average amount of secondary education received in 1955. The education levels in 1970 were then calculated using the cohort method.

A number of adjustments were made to the census data in order to make the estimates as comparable as possible. In some countries (e.g., Italy), the census information referred to the final level of qualification received, and this had to be transformed into equivalent years of education with the help of information concerning the length of study required on average for the various qualifications. Allowances were also made to include years repeated and study years prior to drop-out. Adjustments were made to insure the equivalent treatment of illiterates between countries. A final, more technical, issue is that of possible biases arising in census and survey data through under-reporting and over-reporting of years of schooling. For the United States, Folger and Nam (*Education of the American Population*, 1967) concluded that the net bias resulting from these two effects was probably very small and certainly not large enough to invalidate the analysis of attainment data. Figures presented here were adjusted to conform to the OECD standardized classification of educational systems. See section entitled "Intercountry Data" for further discussion of this classification.

FREQUENCY OF REPORTING: Data updated irregularly.
DATA ALSO AVAILABLE FOR: Greece, Portugal, Spain.
OTHER SIMILAR DATA: *Education, Inequality and Life Chances*, OECD, Paris, 1975.

SOURCE: Organization for Economic Cooperation and Development, *Educational Statistics Yearbook, Vol. I*, Paris, 1974.

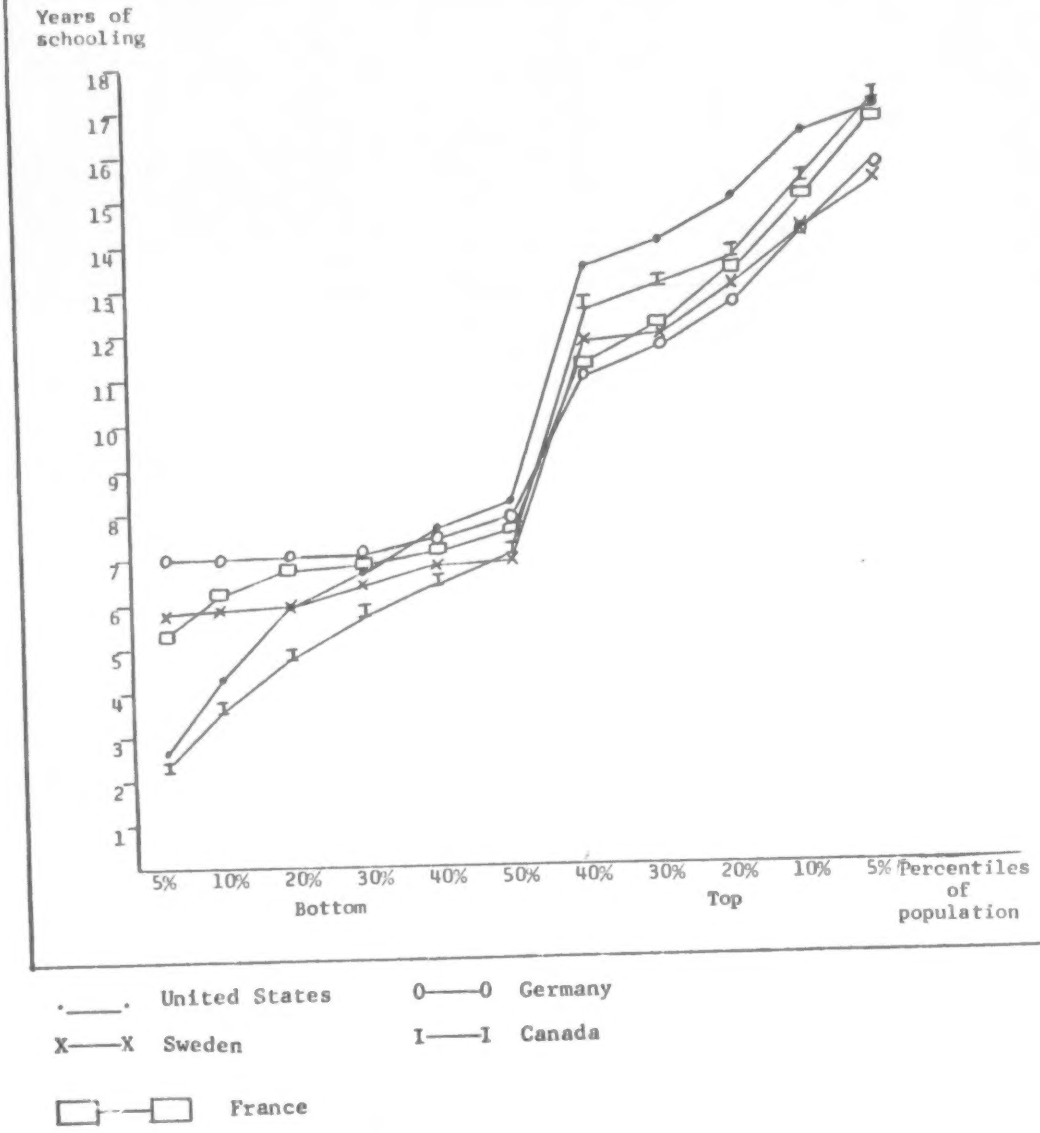
Equality of the distribution of educational attainment varied widely both within and among industrialized nations.

This chart illustrates that the widest variance occurred within some of the countries. For example, of the countries considered, countries in which the least educated 5 percent of the population had the lowest level of educational attainment were also the countries in which the most educated 5 percent had the highest level of educational attainment. The United States and Canada were two such countries. Other nations, such as the United Kingdom and Germany, had a more even distribution of educational experiences.

See Table 3.4

Chart 3.4

Average Levels of Education of Selected Percentiles of the Population Aged 15 and Over in Selected OECD Countries: Various Years
(Per capita level of education in years)



Source of Data: OECD

Table 3.4.--Average levels of education of selected percentiles of the population aged 15 and over in selected OECD countries 1/: various years

Country	Year	Bottom 5%	Bottom 10%	Bottom 20%	Bottom 30%	Bottom 40%	Bottom 50%	Top 40%	Top 30%	Top 20%	Top 10%	Top 5%
Belgium 2/	1961	6.3	6.7	6.8	6.9	7.1	7.3	11.0	11.8	12.9	14.5	16.3
Canada	1971	2.1	3.4	4.8	5.8	6.4	7.0	12.7	13.3	14.0	15.6	17.2
Denmark	1961/62	7.0	7.0	7.0	7.0	7.0	7.1	11.1	11.6	12.4	13.6	15.1
Finland 3/	1970	5.0	5.0	5.4	5.6	5.8	6.1	10.7	11.5	12.6	14.1	15.9
France	1968	5.3	6.2	6.6	6.8	7.1	7.3	11.2	12.2	13.2	14.9	16.9
Germany	1970	7.0	7.0	7.0	7.0	7.3	7.4	11.0	11.7	12.6	14.3	15.8
Ireland	1966	7.0	7.5	7.8	7.8	7.9	7.9	11.1	11.7	12.5	13.8	15.5
Italy 2/	1961	0.1	0.6	1.4	2.1	2.6	3.2	8.4	9.2	10.6	13.0	15.1
Japan	1970	5.0	5.5	6.6	7.1	7.4	7.7	12.6	13.0	13.6	15.1	16.2
Netherlands 4/ .	1960	6.0	6.0	6.0	6.0	6.0	6.0	10.3	10.7	11.6	14.0	15.9
Norway	1960	7.0	7.0	7.0	7.0	7.0	7.0	9.7	10.2	11.1	12.7	14.9
Sweden 5/	1970	5.8	5.9	5.9	6.3	6.5	6.8	11.7	12.3	13.0	14.3	15.6
United Kingdom .	1961	7.3	7.7	8.3	8.6	8.7	8.7	11.2	11.6	12.4	14.0	15.8
United States ..	1970	2.4	4.1	5.9	6.7	7.4	8.1	13.5	14.0	15.0	16.4	17.1

1/ Per capita level of education in years.
2/ Total aged 14 and over.
3/ Total aged 25 and over.
4/ Active population.
5/ Total aged 16-59.

NOTES.—Caution should be observed in making intercountry comparisons. Countries have different cut-off points when collecting census data on educational attainment, i.e., Denmark, Germany and Norway have a lower cut-off point of seven years; in 8 countries, there is no lower limit on the assumed level of schooling and in some of these (Canada, the United States), it is noted that the bottom 10 percent appear to have much less schooling. The problem also arises in the upward direction where all countries have set a maximum limit. Also, comparability is impaired by the fact that data spanning 10 years were used.

FREQUENCY OF REPORTING: One-time study.

DATA ALSO AVAILABLE FOR: Greece, New Zealand, Portugal, Spain, Turkey.

OTHER SIMILAR DATA: Educational Statistics Yearbook, Vol. I, OECD, Paris, 1974.

SOURCE: Organization for Economic Cooperation and Development, Education, Inequality and Life Chances, Vol. I, Paris, 1975.

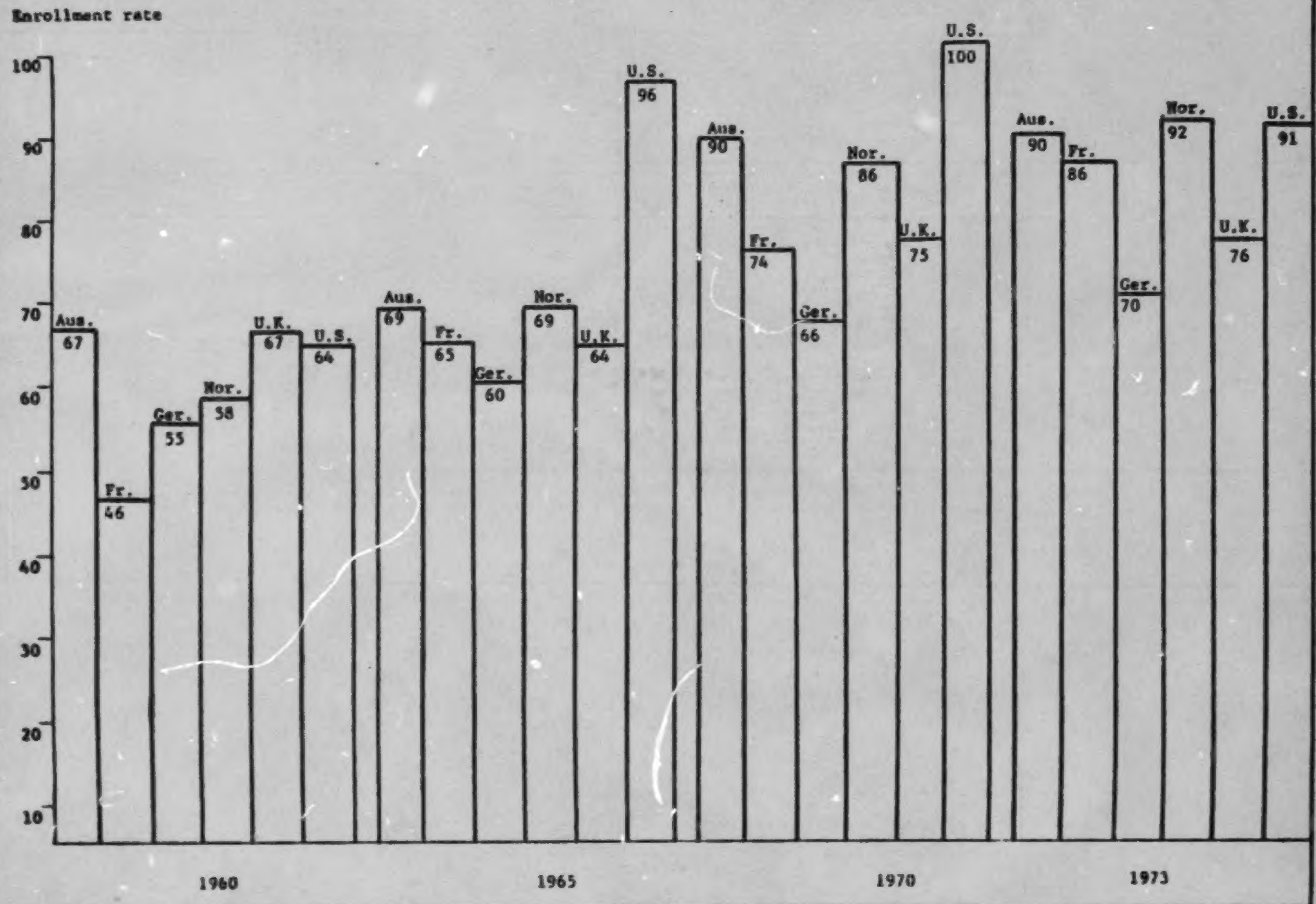
Enrollment rates in secondary school increased steadily from 1960 to 1970 in industrialized countries.

The growth of enrollments in secondary education is indicative of the strong upward movement in education in developed OECD countries. In 1960, none of the 6 nations in this chart had a secondary enrollment rate above 67. In 1972, only one nation, Italy, was below this level.

See Table 3.5

Chart 3.5

Enrollment Rates for the Second Level of Education in Selected OECD Countries: 1960, 1965, 1970, 1973



Source of Data: UNESCO

Table 3.5.--Enrollment rates for the second level of education in selected OECD countries: 1960, 1965, 1970, 1973

Country	1960	1965	1970	1973	Age group
Australia......	61	72	83	71	12-17
Austria........	67	69	90	90	10-18
Belgium........	85	93	NA	79	12-17
Canada.........	56	71	77	98	13-18
Denmark........	56	67	74	84	13-18
Finland........	74	76	77	107	13-18
France.........	46	65	74	86	11-17
Germany........	55	60	66	70	11-18
Ireland........	35	52	77	61	12-17
Italy..........	35	47	59	68	11-18
Japan..........	79	86	91	94	12-17
Netherlands....	76	80	91	100	12-17
Norway.........	58	69	86	92	13-18
Sweden.........	68	74	85	70	13-19
Switzerland....	NA	NA	69	64	12-19
United Kingdom.	67	64	75	75	12-18
United States..	64	96	100	91	13-17

NOTES.—Gross enrollment rates for the second level of education are the total enrollments of all ages divided by the population of the specific age group which corresponds to secondary schooling. These rates have been calculated taking into account the differing national systems of education and the duration of schooling at the second level. UNESCO observed the following rules to determine the age groups used to calculate enrollment rates for the secondary level.

1. For countries which have a single school system at each level, the age group is defined in conformity with the normal entrance age and normal duration of general schooling at the secondary level.
2. In the case of countries with several systems of differing durations, the system followed by the majority of the pupils has been used.
3. When it has not been possible to identify one of several systems as being followed by a majority, then the most representative system has been used. Where it has been necessary to calculate an average of several systems and the calculation produced a fraction, the duration has been rounded up to the next highest year.
4. The durations used are those which were operative in that year.

Total enrollment at the secondary level, including general education, vocational education and teacher training, was used to determine enrollment rates at this level. It should be emphasized that the gross enrollment rate at the secondary level includes pupils of all possible ages, whereas the population is limited to the range of official school ages as defined by the rules above.

FREQUENCY OF REPORTING: Annual.

DATA ALSO AVAILABLE FOR: Greece, Luxembourg, Portugal, Spain, Turkey, Yugoslavia.

SOURCE: United Nations Educational, Scientific, and Cultural Organization, Statistical Yearbook, Paris, 1974.

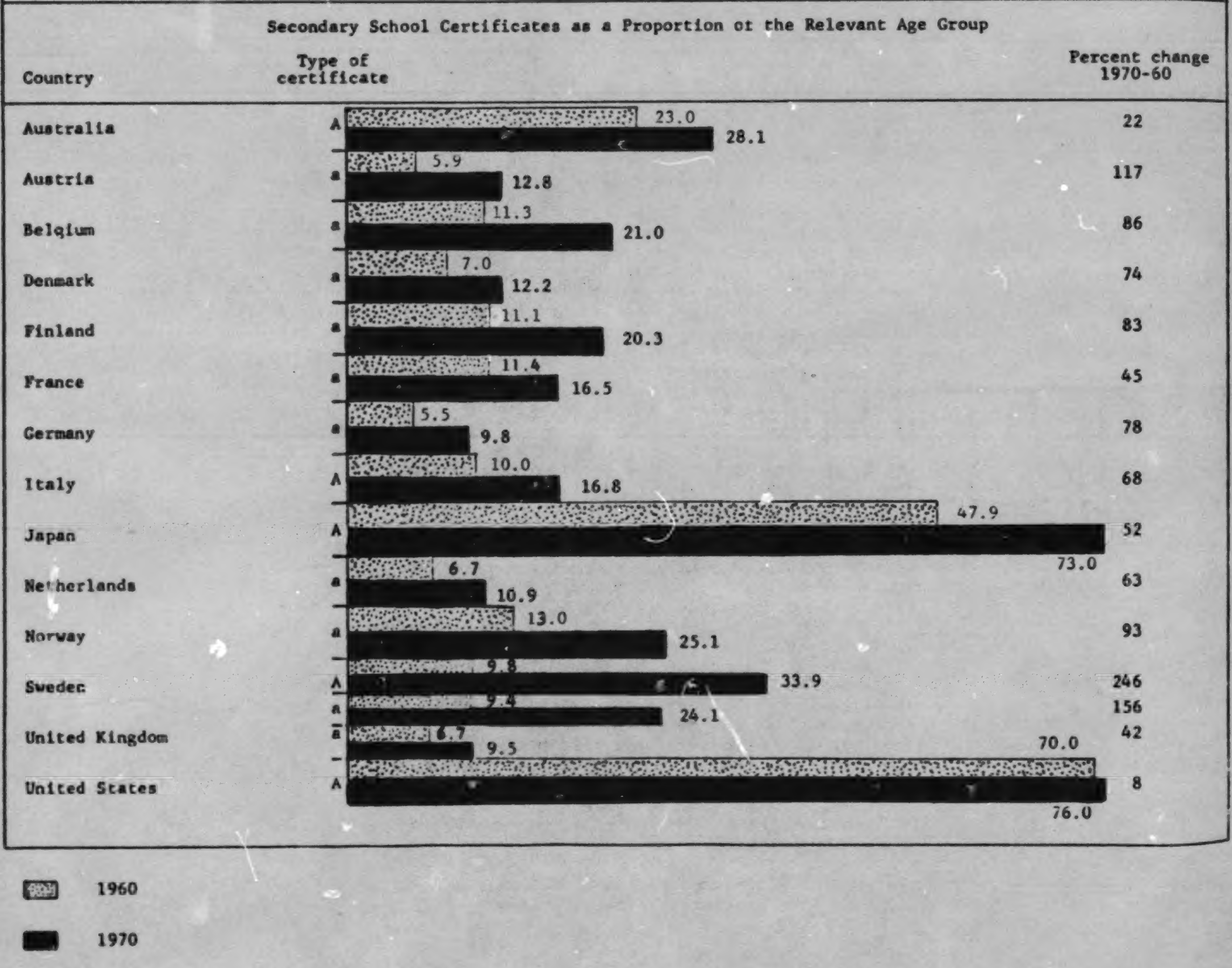
The number of people with completed secondary education has increased dramatically since 1960, both absolutely and relative to the school-age population.

The number of certificates granted for completion of secondary school has increased substantially in all industrialized countries from 1960 to 1970. Even as a proportion of the relevant (secondary school leaving) population, a 71 percent increase was recorded overall in that decade. The largest increase was in Sweden (up 246 percent for type "A" certificates and up 156 percent for type "a" certificates). The smallest increase in the ratio of secondary certificates to population occurred in the United States. Among type "A" certificates, countries with a large number of certificates awarded in 1960 showed the smallest increase over the decade in percentage terms. Among type "a" certificates, however, there was no apparent relationship between the 1960 level of certificates and the subsequent rate of increase in awards.

See Table 3.6

Chart 3.6

Trend in the Number of Secondary School Certificates in Selected OECD Countries: 1959/60-1969/70



Source of Data: OECD

Table 3.6.--Trend in the number of school leaving certificates in selected OECD countries: 1959/60-1969/70

Country	Type of certificate	1959-60	1964-65	1969-70
Australia..........	A	NA	46,633	61,474
Austria............	a	7,230	7,133	12,384
Belgium............	a	11,254	23,245	30,071
Denmark............	a	4,443	8,958	9,662 1/
Finland............	a	7,666	13,444	18,280
France.............	a	59,287	96,924	136,707
Germany............	a	56,600	51,510	77,208 2/
Italy..............	A	77,121	103,959	143,592 2/
Japan..............	A	933,700	1,160,100	1,402,962
Netherlands........	a	11,500	17,183	24,083
Norway.............	a	5,770	11,904	14,882
Sweden.............	a	9,136	18,672	30,042 1/
	A	9,538	19,236	42,119
United Kingdom.....	a	43,300	66,090	74,530
United States......	A	1,864,000	2,642,000	2,899,000

1/ 1968-69.
2/ 1967-68.

NOTES.—The statistics used in this table were taken from national publications and adjusted to conform to the OECD standardized classification of educational systems. Data up to 1967 were collected by survey method and have been published in Development of Higher Education, 1950-1967: Statistical Survey and Analytical Report, OECD, Paris, 1971. These figures were updated (and modified where there have been changes in the classification system) to 1970. See section entitled "Intercountry Data" for a discussion of the classification system.

CLASSIFICATION OF DIPLOMAS OF SECONDARY EDUCATION

Diplomas for secondary education have been divided into:

- Type A, indicating completion of studies "offering pupils a relatively good chance of continuing their studies in a higher education establishment"; cf. Classification of Educational Systems in OECD Member Countries, OECD, Paris, 1972.
- Type a, a sub-category of the above, which is a requirement for entry into higher education.

The following diplomas have been taken into consideration in the countries concerned:

Australia A : High School Certificate or Matriculation or Senior Certificate.
Austria a : Reifeprufung.
Belgium a : Certificats d'humanities.
Canada A : Immatriculation.
Denmark a : Studentereksamen, Hojere Foreberdelsk Foreberdelsksamen.
Finland a : Studentexamen - Ylioppilastutkinto.
France a : Baccalaureate.
Germany a : Arbitur.
Italy A : Maturite classica, scientifica, technica et artistica.
Japan A : High School Certificate.
Netherlands a : Secondary school leaving certificate awarded by the "Gymnasium" and the "Hogereburgerschool."
Norway a : Studenteksamen.
Sweden a : Studentexamen
A : Studentexamen, Leaving certificate of the Fackskola.
United Kingdom a : General Certificate of Education - two A level passes and over.
United States A : High School Certificate.

FREQUENCY OF REPORTING: One-time study.

DATA ALSO AVAILABLE FOR: Austria A, Belgium A, France A, Greece a, Spain a, A, Turkey a, United Kingdom A, Yugoslavia a.

OTHER SIMILAR DATA: Development of Higher Education 1950-1967, OECD, Paris, 1971; Development of Secondary Education, OECD, Paris, 1969.

SOURCE: Organization for Economic Cooperation and Development, Towards Mass Higher Education, Paris, 1974.

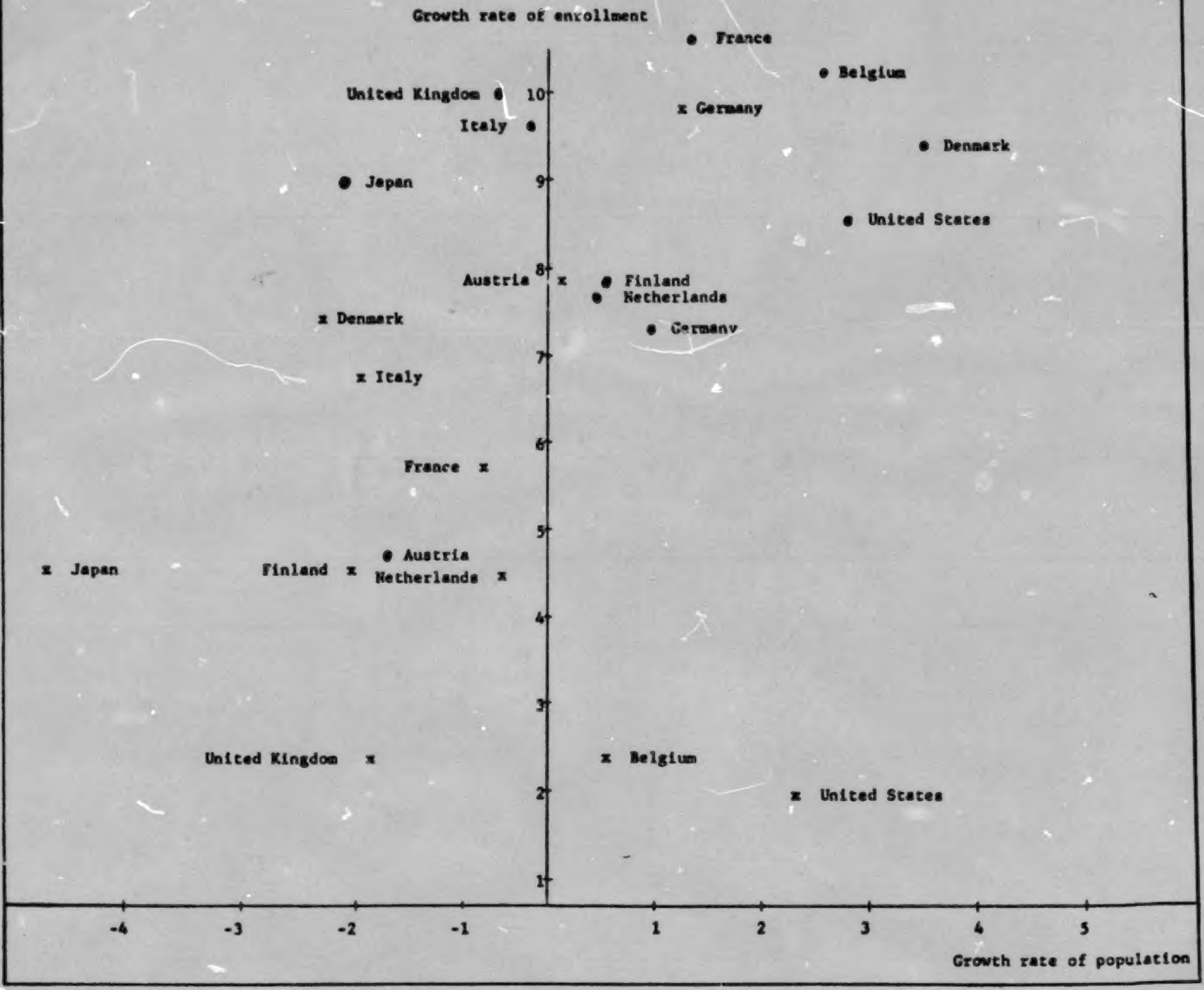
The growth rate of enrollment in higher education has continued to outstrip the growth rate of school-age population.

In all countries except the United States in the period 1970-75, enrollment growth in higher education exceeded population growth of the relevant age group; in all countries with population losses, enrollment continued to grow nevertheless. These relationships indicate generally rising enrollment rates. However, the population-enrollment association vanished in the 1970-75 period compared to 1960-70. The simple correlation between these two growth rates was a weakly significant +.37 in 1960-70. In 1970-75, there was no relationship among these countries.

See Table 3.7

Chart 3.7

The Relationship Between Compound Growth of Higher Education Total Enrollment and the Corresponding Population Group in Selected OECD Countries: 1960-70. 1970-75



● 1960-70

x 1970-75

Source of Data: OECD

Table 3.7.--Rate of increase in school age population and total enrollment in selected OECD countries: 1960-70, 1970-75

Country	Annual compound growth rate of school age population				Annual compound growth rate of total enrollment			
	Secondary		Higher		Secondary		Higher	
	1960-70	1970-75	1960-70	1970-75	1960-70	1970-75	1960-70	1970-75
Australia	2.3 1/	2.2	4.9 1/	1.0	5.6	2.6 5/	NA	9.2 5/
Austria	0.7 2/	2.9	-1.8 2/	0.1	3.5	2.8	4.8	7.9
Belgium	1.7 3/	1.4 4/	2.7 3/	0.6 4/	2.4	2.6 5/	10.3	2.2 5/
Canada	NA	1.6 5/	NA	2.6 5/	6.0	1.1 7/	11.3	4.1 7/
Denmark	-1.0 1/	-0.1	3.6 1/	-2.2	NA	-1.3 7/	9.3	7.4 5/
Finland	-1.9 1/	-1.5	0.7 1/	-2.0	3.6	-0.3	7.9	4.5
France	0.5 1/	0.3	1.4 1/	-0.6	3.8	1.9 5/	11.1	5.7 5/
Germany	2.7 1/	2.9	1.0 1/	1.2	3.3	4.9 5/	7.3	9.6 5/
Ireland	NA	NA	NA	NA	NA	5.3 5/	NA	4.4 7/
Italy	0.8	1.4	-0.2	-2.0	5.8	4.8	9.6	6.7 5/
Japan	-2.4 1/	-0.9	-2.1 1/	-4.9	-0.2	0.2 5/	9.0	4.5 7/
Netherlands	0.6	1.2	0.6	-0.5	2.8	4.7 5/	7.8	4.3 5/
Norway	NA	0.4	NA	-0.8	NA	2.0 5/	9.4	6.7 5/
Sweden	-1.0	-0.5	-1.0	-2.9	3.5	-0.8 5/	NA	-4.2 7/
Switzerland	NA	NA	NA	NA	3.4 6/	NA	7.1 6/	NA
United Kingdom	1.8 1/	2.2	-0.5 1/	-1.9	1.2	4.8 5/	10.0	2.2 5/
United States	1.4 1/	0.8	2.9 1/	2.2	3.4	1.0	8.3	1.8

1/ 1961-70.
2/ 1962-70.
3/ 1961-71.
4/ 1971-73.
5/ 1970-74.
6/ 1961-69.
7/ 1970-73.

NOTES.—The figures refer to full-time enrollment except those for Finland and the United States which refer to full and part-time enrollment. Figures conform to the OECD Standardized Classification of Educational Systems. See section entitled "Intercountry Data" for further discussion of this classification. The age ranges are those relevant in each country for the level of education specified. Corresponding age range for higher education in each country covers five years of age starting from the age of leaving secondary education.

FREQUENCY OF REPORTING: Data updated irregularly.

DATA ALSO AVAILABLE FOR: Greece, Luxembourg, Portugal, Spain, Turkey, Yugoslavia.

OTHER SIMILAR DATA: Educational Statistics Yearbook, Vol. I, OECD, Paris, 1974.

SOURCE: Organization for Economic Cooperation and Development, unpublished data, 1977.

Admissions data reveal significant growth of post-secondary education from 1960 to 1970 in industrialized countries.

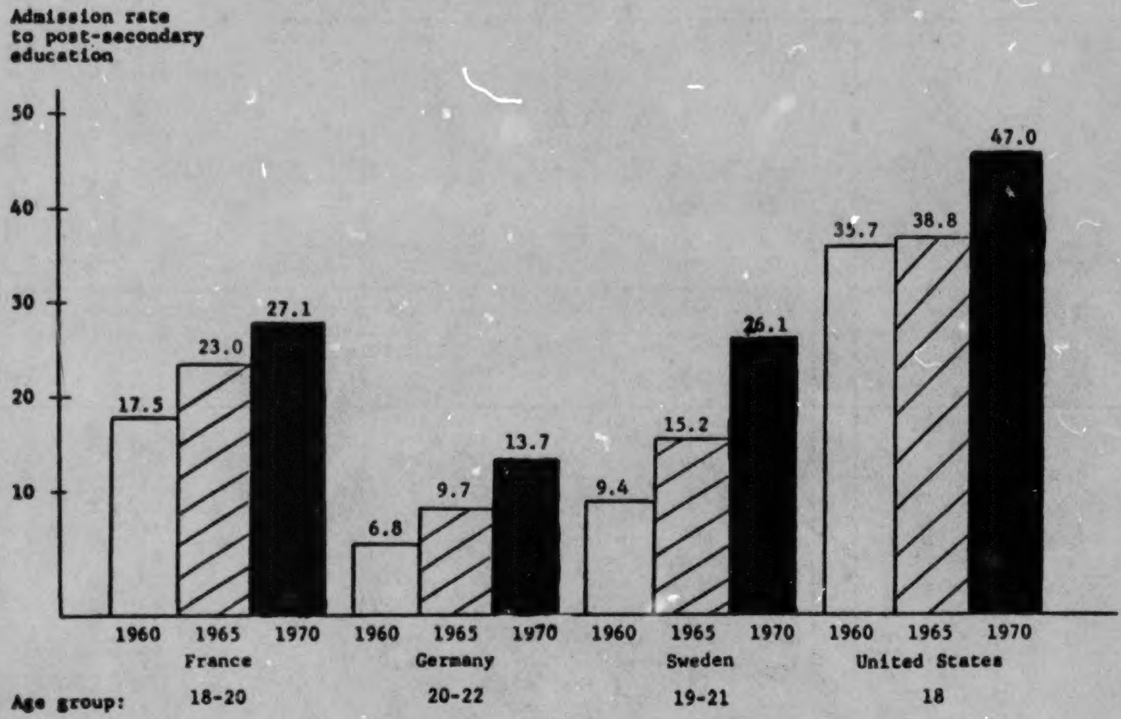
The rate of admission to higher education is a useful indicator for measuring average chances of admission and one which can be used fairly easily for international comparison. While the United States had the highest level of admission to post-secondary education in both 1960 and 1970, the greatest amount of increase during the decade took place in Italy and Sweden.

It can be seen that the probability of a young American being admitted to a higher education program is 47 percent; almost a one-in-two chance, while in 1960, only one in every three people (35 percent) were admitted. In the industrialized OECD member countries (excluding the United States), the average rates of admission were 23 percent in 1970 and 12 percent in 1960, with a range of 13 to 30 percent among the countries concerned in 1970.

See Table 3.8

Chart 3.8

Trend in Admission Rates to Post-Secondary Education in Selected OECD Countries: 1960-70



Source of Data: OECD

Table 3.8.--Trend in admission rates to post-secondary education in selected OECD countries: 1960-70

Country	Age group	Admission rate (In percentages of an average age group) 1960	1965	1970	Index of growth 1960=100 1965	1970
Australia......	17-18	NA	NA	22.2	NA	NA
Austria........	18-20	7.0	8.5	13.0 1/	121	186
Belgium........	18-20	18.3	22.0	29.5	120	161
Denmark........	19-21	14.4	16.8	24.1	117	167
Finland........	19-21	11.9	13.7	16.3	115	137
France.........	18-20	17.5	23.0	27.1 1/	131	155
Germany........	20-22	6.8	9.7	13.7	143	201
Italy..........	19-21	7.6	13.0	24.0	171	316
Japan..........	18-19	11.1	18.6	26.8	168	241
Netherlands....	17-20	12.0	12.8	18.3	107	153
Norway.........	19-21	NA	20.1	26.3	NA	NA
Sweden.........	19-21	9.4	15.2	26.1	162	278
United Kingdom.	18-20	NA	NA	29.0 1/	NA	NA
United States..	18	35.7	38.8	47.0	109	132

1/ 1969.

NOTES.—Rate of admission to higher education is the average proportion of an age group entering post-secondary education.

These data, taken from statistical publications of OECD member countries are presented according to the OECD classification of educational systems. See section entitled "Intercountry Data" for a discussion of this classification system.

The figures given for the United States cover very wide regional differences. In 1963, the rates of admission varied from 19 percent (Alabama) to 63 percent (California), around an average rate of 35 percent. Cited in W. W. Willingham, Free Access Higher Education, Table E, p. 202, College Entrance Examination Board, New York, 1970.

FREQUENCY OF REPORTING: One-time study.

DATA ALSO AVAILABLE FOR: Turkey, Yugoslavia.

OTHER SIMILAR DATA: Development of Higher Education 1950-1967, OECD, Paris, 1974; The Educational Situation in OECD Countries, OECD, Paris, 1974; UNESCO Statistical Yearbook.

SOURCE: Organization for Economic Cooperation and Development, Towards Mass Higher Education, Paris, 1974.

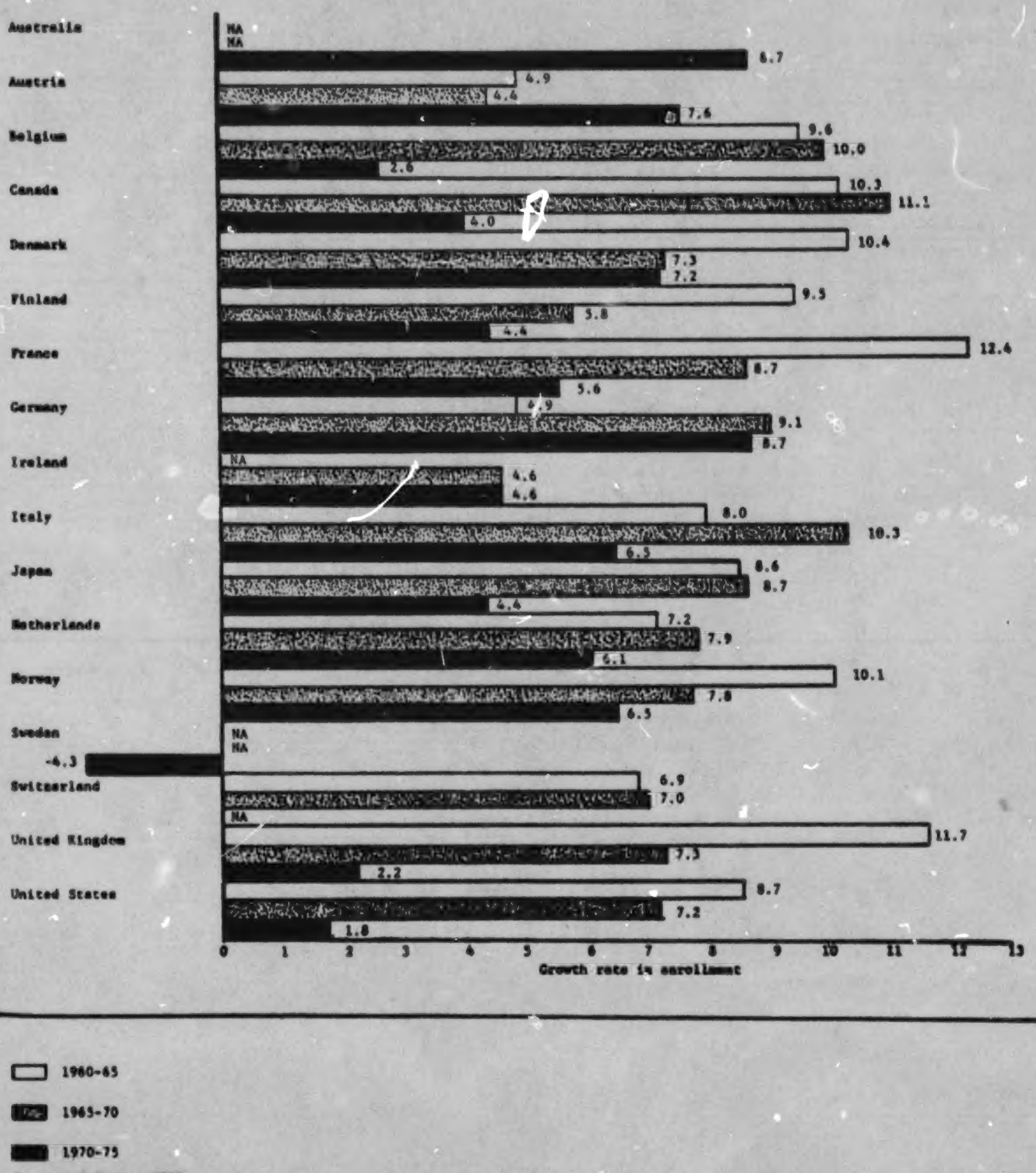
Enrollment in higher education increased substantially from 1960 to 1975, but at a decreasing rate.

Enrollment in higher education in the 14 industrialized countries for which data are available increased by 8.[illegible] percent from 1960 to 1965, by 7.8 percent from 1965 to 1970 in 15 industrialized countries and by 4.8 percent in 16 industrialized countries from 1970 to 1975. The countries with the largest growth in the decade of the 1960's were Canada and France, while in the first half of the 1970's Australia and Germany led the way. The slowest growth from 1960 to 1970 occurred in Austria and Switzerland, while from 1970 to 1975 the slowest growth was in Sweden and the United States. Countries that had relatively high growth rates in the past have in all cases experienced a slowdown in enrollment growth more recently.

See Table 3.9

Chart 3.9

Trend in Enrollment in Higher Education in Selected OECD Countries: 1960-75



Source of Data: OECD

Table 3.9.--Enrollment in higher education in selected OECD countries: 1960, 1965, 1970, 1975

(Thousands)

Country	1960	1965	1970	1975
Australia	NA	NA	111.1	171.9
Austria	39.3	50.3	62.6	91.4
Belgium	52.0	84.0	138.8	158.2 *
Canada	163.2	273.6	475.5	558.5 4/
Denmark	28.6	48.1	69.4	92.4 4/
Finland	35.0	56.2	75.2	93.7
France	282.4	524.9	810.0 *	1,011.6 4/
Germany	269.7	344.8	544.6	840.8
Ireland	NA	20.7	26.1	32.9 *
Italy	284.4	424.7	709.8	921.3 * 4/
Japan	702.8	1,080.2 *	1,665.3	1,899.9 5/
Netherlands	83.8	119.9	177.8	241.2 *
Norway	21.6 *	35.8	53.0	68.7 4/
Sweden*	NA	NA	152.1	133.6 5/
Switzerland	27.1 1/	40.9 2/	47.0 3/	NA
United Kingdom	175.5 *	315.0 *	454.4	496.5 4/
United States 6/	3,583.0	5,526.0	7,920.0	8,665.0

* Estimate.
1/ 1961.
2/ 1967.
3/ 1969.
4/ 1974.
5/ 1973.
6/ Degree credit students only.

NOTES.—These figures refer to full-time enrollment except for Finland, Norway (1974), Sweden and the United States in which case data cover both full- and part-time enrollment. Data were gathered by questionnaire method and adjusted to conform with the OECD classification of educational systems. See section entitled "Intercountry Data" for a discussion of this classification system.

FREQUENCY OF REPORTING: Data updated irregularly.

DATA ALSO AVAILABLE FOR: Greece, Iceland, Luxembourg, Portugal, Spain, Turkey, Yugoslavia.

OTHER SIMILAR DATA: United Nations Statistical Yearbook; Development of Higher Education: 1950-67, OECD, Paris, 1971; UNESCO Statistical Yearbook; Towards New Structures of Post-Secondary Education, OECD, Paris, 1971; Educational Statistics Yearbook Vol. I, OECD, Paris, 1974; Towards Mass Higher Education, OECD, Paris, 1974.

SOURCE: Organization for Economic Cooperation and Development, unpublished data, 1977.

The rate at which university enrollment has increased between 1960 and 1975 varies widely among industrialized OECD member countries.

Using an index of 1960=100, data for Denmark register the greatest increase in university-type enrollment from 1960 to 1975. In some countries, but not all, the growth slowed down in the 1970-75 period.

Table 3.10

Enrollment in University-Type Higher Education in Selected OECD Countries: 1960, 1965, 1970, 1975

Country	Thousands				Index (1960=100)		
	1960	1965	1970	1975	1965	1970	1975
Australia	30.8	50.2	78.9	97.1	162	256	315
Austria	38.5	48.9	54.9	79.3	127	143	206
Belgium	30.7	48.8	75.1	83.4 *	159	245	272 *
Canada	113.9	205.9	356.7	417.2 5/	181	313	366 5/
Denmark	14.4	29.8	46.0	60.5 5/	207	319	420 5/
Finland	24.1	41.2	57.2	73.7	171	237	306
France	234.2	434.0	682.7 *	844.4 5/	185	29[illegible] *	361 5/
Germany	211.1	266.1	407.1	680.2	126	193	322
Ireland	NA	16.0	20.3	21.3 *	NA	NA	NA
Italy	275.1	412.4	694.5	902.2 * 5/	150	252	328 5/*
Japan	619.3	925.0	1,386.6	1,633.9 5/	149	224	264 5/
Netherlands	40.7	64.4	103.4	130.0 *	158	254	319 *
Norway	9.2	18.5	28.7	36.3 5/	201	312	395 5/
Sweden	36.9	66.4	123.2	110.7 6/	180	334	300 6/
Switzerland	23.4 2/	36.0 3/	42.2 4/	NA	154 3/	190 4/	NA
United Kingdom	NA	196.1 *	277.5	327.2 5/	NA	NA	NA
United States 1/	3,131.0	4,685.0	6,290.1	6,680.0	150	201	213

* Estimate.
1/ Degree credit students only.
2/ 1961.
3/ 1967.
4/ 1969.
5/ 1974.
6/ 1973.

NOTES.—The length of the different types of university-type higher education varies from country to country. Therefore, corresponding years of study in the educational scale were specified to permit any regrouping necessary for intercountry comparisons.

FREQUENCY OF REPORTING: Data updated irregularly.

DATA ALSO AVAILABLE FOR: Greece, Iceland, Luxembourg, Portugal, Spain, Turkey, Yugoslavia.

OTHER SIMILAR DATA: UNESCO Statistical Yearbook; Development of Higher Education, 1950-1967, OECD, Paris, 1971; Educational Statistics Yearbook, Vol. I, International Tables, OECD, Paris, 1974; Towards Mass Higher Education, OECD, Paris, 1974.

SOURCE: Organization for Economic Cooperation and Development, unpublished data, 1977.

The total public burden of education costs varied among OECD countries in the first half of the 1970's.

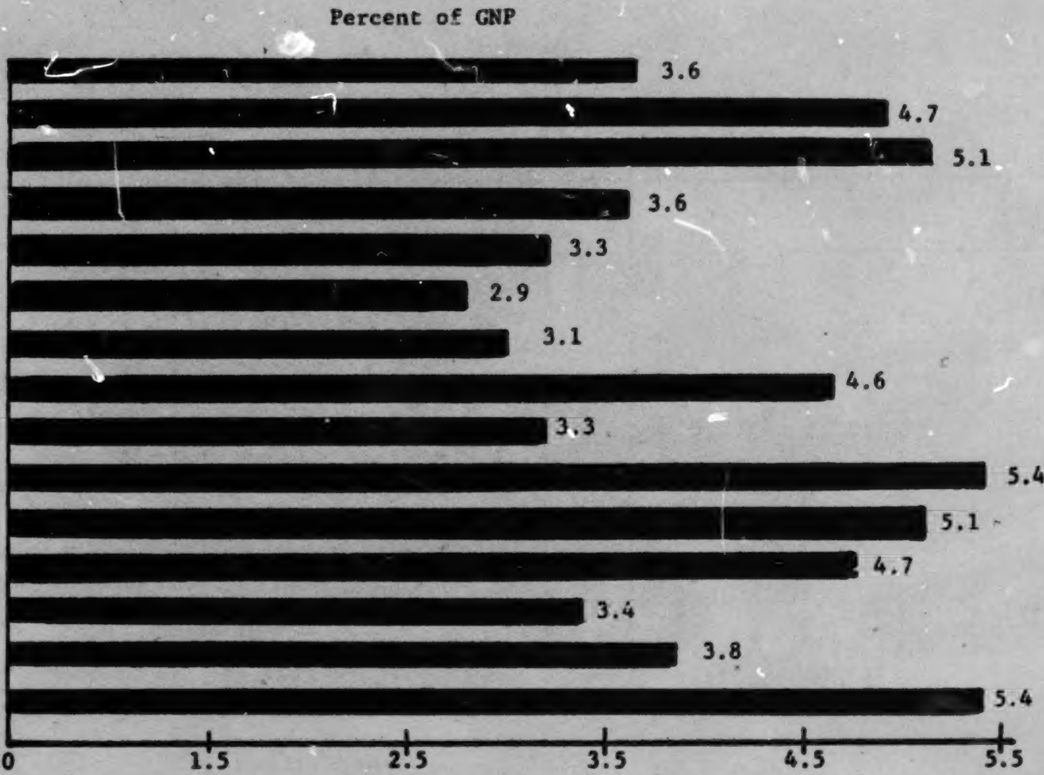
Of the countries for which data are shown, the United States and the Netherlands had the highest public expenditure on education as a percent of GNP (5.4). Denmark and Norway followed with a percent of 5.1.

See Tables 3.11A, B and C

Chart 3.11

Public Current Expenditures for Education in Selected OECD Countries: 1974

Current public expenditures	
$ 1,176,380,000	Austria (1974)
7,050,710,000	Canada (1974)
1,578,200,000	Denmark (1974)
801,870,000	Finland (1974)
8,682,910,000	France (1974)
11,166,410,000	Germany (1974)
210,030,000	Ireland (1973)
6,318,040,000	Italy (1973)
15,422,760,000	Japan (1974)
3,250,170,000	Netherlands (1973)
1,159,810,000	Norway (1974)
2,856,830,000	Sweden (1974)
1,402,560,000	Switzerland (1973)
5,435,630,000	United Kingdom (1971)
30,200,000,000	United States (1974)



Source of Data: OECD

Table 3.11A

Public Current Expenditure on Total Public Education in Selected OECD Countries: Various Years

Country	Year	Public expenditure on public education 1/ (billions of U.S. dollars)	GNP 2/ (billions of U.S. dollars)	Percent of GNP spent on public education
Austria	1974	$ 1.18	$ 32.82	3.6%
Canada	1974	7.05	150.96	4.7
Denmark	1974	1.58	30.73	5.1
Finland	1974	0.80	22.14	3.6
France	1974	8.68	266.66	3.3
Germany	1974	11.17	384.66	2.9
Ireland	1973	0.21	6.80	3.1
Italy	1973	6.32	138.21	4.6
Japan	1974	15.42	464.93	3.3
Netherlands 3/	1973	3.25	60.53	5.4
Norway	1974	1.16	22.94	5.1
Sweden	1974	2.86	60.42	4.7
Switzerland	1973	1.40	40.56	3.4
United Kingdom	1971	5.44	143.65	3.8
United States	1974	80.20	1,472.22	5.4

Table 3.11B

Public Current Expenditure on Public Primary and Secondary Education in Selected OECD Countries: Various Years

Country	Year	Enrollment in public primary and secondary education 4/ (millions)	Public expenditure on public primary and secondary education 1/ (billions of U.S. dollars)	Ratio of expenditure per pupil enrolled in public primary and secondary education to GNP per capita
Austria	1974	1.14	$ 0.78	0.198
Canada	1974	NA	4.88	NA
Denmark	1974	NA	1.10	NA
Finland	1974	NA	0.68	NA
France	1974	7.88	6.61	0.165
Germany	1974	9.[illegible]4 5/	7.12	0.122
Ireland	1973	.62	0.16	NA
Italy	1974	8.81	4.81	NA
Japan	1974	17.60	11.98	0.161
Netherlands 3/	1973	2.39	2.16	0.184
Norway	1972	0.68	0.54	0.211
Sweden	1974	1.24	1.32	0.166
Switzerland	1974	NA	1.31	NA
United Kingdom	1971	9.48	3.76	0.153
United States	1974	42.80	56.30	0.189

Table 3.11C

Public Current Expenditure on Public Higher Education in Selected OECD Countries: Various Years

Country	Year	Enrollment in public higher education 4/ (millions)	Public expenditure on public higher education 1/ (billions of U.S. dollars)	Ratio of expenditure per pupil enrolled in public higher education to GNP per capita
Austria	1974	0.08	$ 0.16	0.436
Canada	1974	NA	2.07	NA
Denmark	1974	NA	0.39	NA
Finland	1974	NA	0.10	NA
France	1973	0.90	1.12	0.258
Germany	1971	0.34	1.05	0.539
Ireland	1973	0.03	0.04	NA
Japan	1973	0.41	1.39	0.856
Netherlands 3/	1971	0.18	0.36	0.682
Norway	1974	0.06	0.15	0.419
Sweden	1973	0.13	0.35	0.394
Switzerland	1974	NA	0.28	NA
United Kingdom	1971	0.45	1.27	1.106
United States	1974	6.43	23.90	0.535

1/ The figures are adjusted to exclude expenditure on boarding and catering, transport, medical care, welfare and financial aid to students. The figures include public current expenditure which cannot be allocated by level but exclude public expenditure on private education. Unless otherwise specified, the figures include pre-primary education, primary education, secondary education, higher education and special education.

2/ Figures are adjusted to a fiscal year basis and to conform to the OECD/United Nations standardized system of national accounts (old system for Austria, Finland, Germany, Ireland, Italy, Japan and Switzerland; revised system for the other countries).

3/ Including public expenditure on private education. In fact, nearly all private schools within the regular education system are financed by the government up to 100 percent of their necessary expenditure.

4/ Full-time education only. The figures are adjusted to a fiscal year basis.

5/ Figures to be eventually adjusted to include full-time equivalent of part-time compulsory vocational schools.

NOTES.—There are substantial problems of comparability and definition in the expenditure statistics, particularly regarding intercountry variation in the importance of expenditure on research in higher education. Teachers' pensions are sometimes included in the education budget, sometimes not. Rental values for existing buildings are not included for the public sector. Within the aggregate expenditure total, some figures are available on the distribution of costs by teachers, auxiliary staff, equipment, libraries, buildings, etc. but this breakdown is not available in comparable form by country.

The table shows expenditures converted into dollars at the same exchange rates as are used in OECD national accounts statistics, but fluctuating exchange rates make precise comparisons difficult.

Educational levels have been adjusted to conform with the OECD standard classification. See section entitled "Intercountry Data" for a discussion of this classification system.

The OECD reports that it is perhaps useful to emphasize that the cost of education is broader than the items which normally figure in the budgets of Ministries of Education. The biggest input into education is student time, though it is not usually measured or indeed directly costed. In most European countries, earnings foregone are as big as public expenditure on education, and in the United States, they are much higher than public expenditure.

FREQUENCY OF REPORTING: Data updated irregularly.

OTHER SIMILAR DATA: UN Statistical Yearbook; UNESCO Statistical Yearbook; Educational Statistics Yearbook, OECD; The Condition of Education, 1976, USDHEW.

SOURCE: Organization for Economic Cooperation and Development, unpublished data, 1977.

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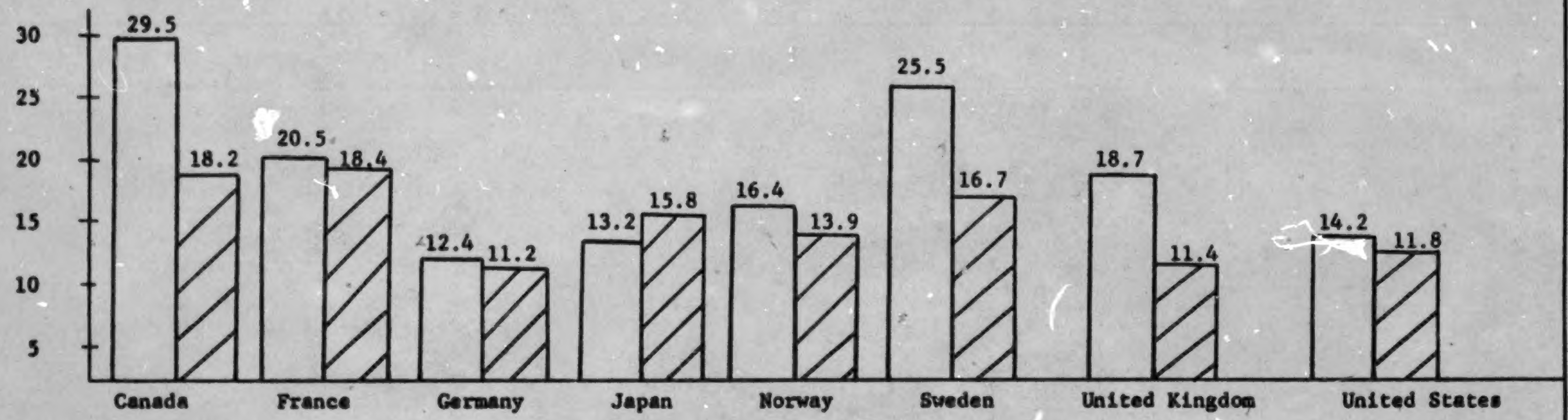
Since 1961, the rise in the cost of higher education has progressed at a faster rate than for education as a whole.

In current prices, total expenditure on higher education increased annually by an average of 20 percent compared to 15 percent for total education, 10 percent for GNP and 13 percent for public expenditure. Although there are considerable variations from country to country, the average share of GNP allocated to higher education more than doubled in the last decade from 0.5 to 1.3 percent. Growth in enrollment was one of the factors contributing to this growth of expenditure.

See Table 3.12

Chart 3.12

Annual Growth Rate in Current Prices of Higher Educational Expenditures Compared to Growth Rate of Total Educational Expenditures in Selected OECD Countries: 1961-70



☐ Higher education

▨ Total education

Source of Data: OECD

Table 3.12.--Annual growth rate in current prices of higher educational expenditures compared to growth rate of total educational expenditure, public expenditure and GNP in selected OECD countries: 1961-70

Country	Higher education expenditures	Total educational expenditure	GNP	Public expenditure
Australia......	12.4	NA	NA	NA
Belgium........	26.5	10.0 1/	8.4	11.1
Canada.........	29.5	18.2 2/	8.7	10.6
Denmark........	28.0	20.5 3/	11.0	15.9
France.........	20.5	18.4 1/	10.7	12.4
Germany........	12.4	11.2 1/	8.3	10.2
Japan..........	13.2	15.8 1/	16.1	14.9
Netherlands....	17.6	14.1 4/	10.7	14.1
Norway.........	16.4	13.9 1/	9.7	12.9
Sweden.........	25.5	16.7 1/	9.0	14.1
United Kingdom.	18.7	11.4 5/	6.9	10.2
United States..	14.2	11.8 6/	6.8	10.9
Average........	19.5	14.7	9.7	12.5

1/ 1960-69.
2/ 1961-69.
3/ 1960-65.
4/ 1960-68.
5/ 1961-67.
6/ 1959-69.

NOTES.—Data are of varying quality and the conditions are somewhat different in each of the countries. Although caution should be used in analyzing these data, the sample helps to explain indirectly the concern with cost and financing of higher education.
FREQUENCY OF REPORTING: One-time study.
OTHER SIMILAR DATA: Higher education data in: Development of Higher Education 1950-67, OECD, Paris, 1971.

SOURCE: Organization for Economic Cooperation and Development, Towards Mass Higher Education, Paris, 1974.

Unemployment rates decreased in the United States with higher levels of education from 1968 to 1976, but the gap narrowed.

Although unemployment rates in the United States from 1968 to 1976 increased, those who attained higher levels of education experienced lower rates than those with less education. However, the difference in unemployment by educational class has diminished. In 1968, the unemployment rate of 18-24 year olds with less than four years of high school was 5.9 times those with four years or more of college. In 1976, the comparable ratio was 3.8. In terms of percent increase, the unemployment rate increased 89 percent for those with the lowest educational level and 191 percent for those with the highest educational level during the eight year period. A similar pattern of unemployment and level of education is shown for those 25-34 years of age, thus supporting research that suggests the economic payoff of education has declined.

Table 3.13

Unemployment Rates of Workers 18-24 and 25-34 Years of Age by Educational Attainment in the United States: 1968, 1971, 1974, 1976

Educational level	Unemployment rates				Percent decrease in unemployment rates from the previous level of education			
	1968	1971	1974	1976	1968	1971	1974	1976
				18-24 year olds				
Less than 4 years of high school	12.9	19.4	17.2	24.4				
4 years of high school	6.7	10.8	9.4	14.8	-48%	-44%	-45%	-39%
1-3 years of college	4.6	10.3	5.9	9.1	-31	- 5	-37	-39
4 years or more of college	2.2	5.4	4.2	6.4	-52	-48	-29	-30
				25-34 year olds				
Less than 4 years of high school	5.4	10.0	8.1	13.1				
4 years of high school	2.8	5.2	4.5	8.1	-48	-48	-44	-38
1-3 years of college	2.2	5.1	4.0	6.5	-21	- 2	-11	-20
4 years or more of college	1.0	3.1	2.6	3.1	-55	-39	-35	-52

NOTES.—Data were compiled by the National Center for Education Statistics from the U.S. Department of Labor, Bureau of Labor Statistics, Special Labor Force Report, "Educational Attainment of Workers," various years and unpublished data.

SOURCE: U.S. Department of Health, Education, and Welfare, National Center for Education Statistics, The Condition of Education, Washington, D.C., 1977.

Increases in educational attainment reduced the chance of unemployment in selected countries in the 1970's.

The youth unemployment situation can be expected to influence the propensity to continue with post-compulsory education. There appears to be a particularly unfavorable situation for those youths who have no occupational skills or who have left the educational system either after compulsory education or during secondary education. Many employers feel that these young people have neither the appropriate qualifications nor motivation to be successful in a stable job. Because job opportunities are so limited, youths are encouraged to postpone their departure from the school system.

The effects of poorer employment or earning prospects on the demand for education are not completely known. The effects probably vary according to the type of study or qualification, sector or branch of employment and social status. Perhaps opposite effects follow one another as in the case of the United Kingdom. At first, the worsening labor market discouraged demand for formal education but since 1975 persistent unemployment has tended to delay departures from the school system which has been further advanced by the appearance of a number of training policy measures within the school system.

Table 3.14A

Unemployment Rate by Level of Education in Canada: 1970, 1973, 1976

Educational level	1970	1973	Educational level	1976
Some elementary	13.6	6.1 1/	0-8 years	7.9
Elementary complete	7.5	4.3 2/	Some high school and no post-secondary	8.2
Some secondary	7.2	7.0	Some post-secondary	6.4
Secondary complete	4.1	5.0	Post-secondary certificate or diploma	5.3
Some university or university degree	2.0	3.7	University degree	3.3
Some other education or training	NA	6.4	Overall unemployment	7.1
Completed other education or training	NA	3.5		
Overall unemployment	6.5	5.2		

1/ Under grade 5.
2/ Grades 5-8.

NOTES.—Data include those 14 years of age and over. Data were derived from a number of supplementary questions appended to the regular Canadian Labor Force Survey. The category "Other Education or Training" is designed to include persons who have obtained further training after leaving elementary or secondary school, e.g., CEGEP, junior or community colleges, trade schools, apprenticeship, private business colleges, Canada Manpower Training, etc.
FREQUENCY OF REPORTING: Data updated irregularly.

SOURCE: Statistics Canada, Notes on Labor Statistics, Ottawa, 1971; Statistics Canada, The Labor Force, Ottawa, September 1974, December 1976.

Table 3.14B

Youth Unemployment Rates by Level of Education in France and Sweden: Various Years

Country	Year	Primary	Secondary	Higher	University
Sweden	1973	7.4	- - - - - - - - - -	4.3	- - - - - - - - - - - -
France	1976	33.8	51.8	11.7	2.6

NOTES.—Data conform to OECD standardized classification of educational systems. See section entitled "Intercountry Data" for a discussion of this classification.
FREQUENCY OF REPORTING: Data updated irregularly.

SOURCE: Swedish Ministry of Labour, unpublished data. French Ministry of Labour, unpublished data.

Higher levels of education were associated with higher levels of earnings in the 1960's.

1960's data from the selected countries showed the positive correlation between higher levels of earnings and higher levels of education. This earnings advantage is also noted in 1970's data although the advantage is lessening in most recent years.

Table 3.15A

Index of Average Annual Earnings of Labor by Level of Education in Selected OECD Countries: Various Years

		Educational level Index: Primary = 100		
Country	Year	Primary	Secondary	Higher
Belgium	1960	100	231	302
Canada 1/	1961	100	144	263
France	1968	100	183	289
Italy	1969	100	141	244
Japan	1968	100	117	161
Norway	1966	100	140	213
United Kingdom	1967	100	140	225
United States	1967	100	129	200

1/ Males only.

NOTES.—Due to differences in the definitions of the education levels, indexes are not comparable between countries. In most countries, the primary level represents 5 to 8 years of schooling, the secondary level, 12 to 14 years, and the higher level, 16 or more years of schooling. Quality of schooling also differs among countries. The coverage and comprehensiveness of the various earnings sources vary enormously between countries.

FREQUENCY OF REPORTING: One-time study.

OTHER SIMILAR DATA: Education, Inequality and Life Chances, Vol. I, OECD, Paris, 1975.

SOURCE: Organization for Economic Cooperation and Development, G. Psacharopoulos, Earnings and Education in OECD Countries, Paris, 1975.

Table 3.15B

Index of Average Annual Income by Detailed Level of Education in Canada and the Netherlands: Various Years

	Index: Primary = 100	
	Males	Females
Canada 1970		
Grades 9-11	112	111
Grades 12-13	124	131
Some university	119	145
University degree	231	225
	Index: Elementary = 100	
Netherlands	1965	1972
Lower secondary	109	107
Middle	131	125
Semi-higher	152	150
Higher	267	237

SOURCE: Canada: Statistics Canada, Household Statistics Branch, correspondence, 1978.
Netherlands: Central Bureau of Statistics, Voorburg, correspondence, 1978.

Table 3.15C

Index of Median Income of Year-Round, Full-Time Workers 25 Years Old and Over by Years of School Completed in the United States: 1970, 1976

	Elementary (8 years) = 100		
	High school (12 years)	Part college (13-15 years)	College (16 or more years)
1970			
Male	127	148	184
Female	134	158	209
1976			
Male	128	141	174
Female	137	160	200

SOURCE: U.S. Bureau of the Census, Current Population Reports, Series P-60, Nos. 80 and 105, "Income of Families and Persons in the United States," Washington, D.C., 1971, 1977.

1969 data reflect a positive correlation between educational attainment and occupational status.

A greater concentration of workers with university degrees or above were found in higher level occupations than in lower level occupations. This same pattern can be seen for workers who had secondary diplomas and above but below university degrees. For example, 1969 data for the United States show 38.2 percent of professional workers had an educational attainment of at least a secondary diploma but below a university degree, and 53.2 percent attained a university degree or above. These percents can be compared with those for sales workers of 44.8 and 7.7 percents, respectively. Data for Canada, Japan, France, the Netherlands, Norway and Sweden reveal similar findings for the same year.

Although the percentages of higher educational attainment appear low, it must be noted that the figures include workers of all ages and, therefore, do not reflect the increase in higher education enrollments that came about in the recent past. Also, the figures do not account for on-the-job training necessary for several professions.

See Table 3.16

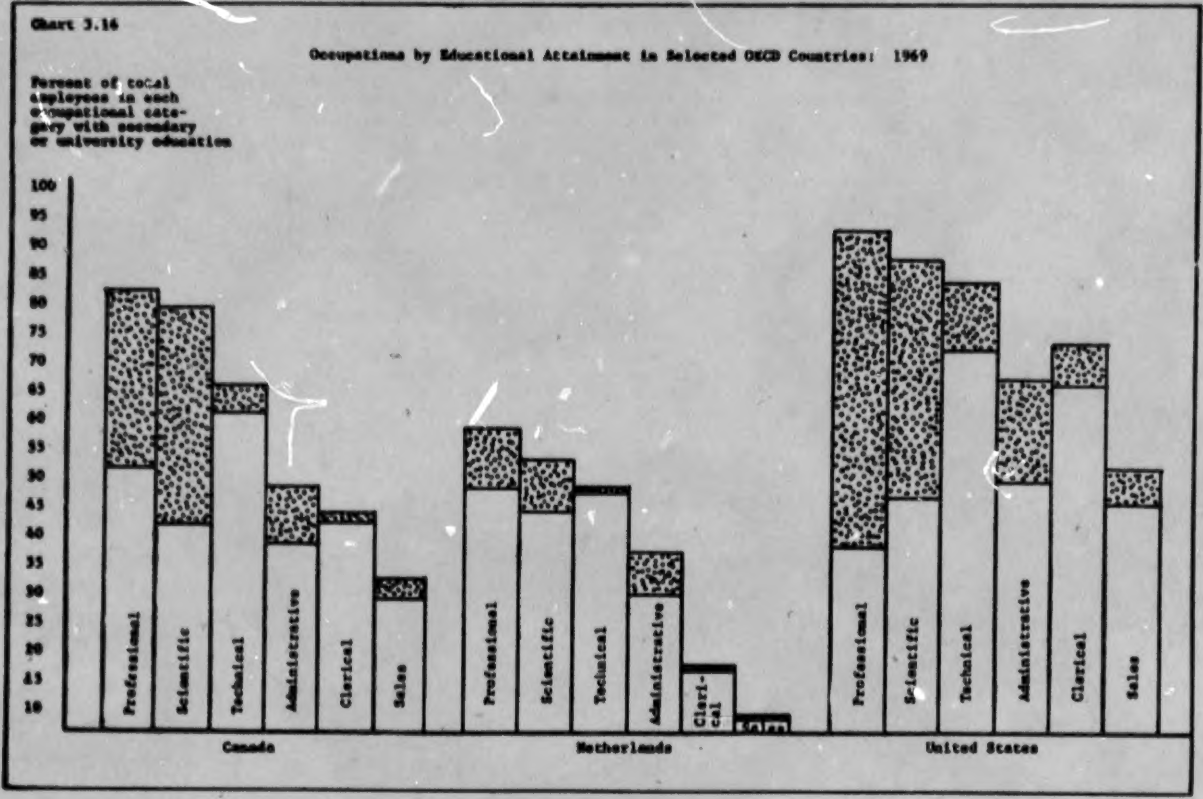


Chart 3.16

Occupations by Educational Attainment in Selected OECD Countries: 1969

▨ University degree or above

☐ At least secondary degree--below university degree

Source of Data: OECD

Table 3.16.--Occupations by educational attainment in selected OECD countries: 1969

	Canada		France		Japan		Netherlands		Norway		Sweden		United States	
	At least secondary degree-below university degree 1/2/	University degree or above 2/	At least secondary degree-below university degree 1/2/	University degree or above 2/	At least secondary degree-below university degree 1/2/	University degree or above 2/	At least secondary degree-below university degree 1/2/	University degree or above 2/	At least secondary degree-below university degree 1/2/	University degree or above 2/	At least secondary degree-below university degree 1/2/	University degree or above 2/	At least secondary degree-below university degree 1/2/	University degree or above 2/
Professional	50.96	31.04	NA	18.44	62.78	25.77	62.53	11.47	NA	23.50	40.04	18.08	38.17	53.22
Scientific	41.15	37.43	NA	19.58	61.10	31.31	44.14	10.16	NA	31.88	45.89	14.60	47.17	41.12
Technical	60.92	4.73	NA	2.70	NA	NA	47.84	0.14	NA	1.27	NA	NA	72.03	10.39
Administrative	38.27	9.71	NA	19.75	49.18	17.57	30.07	6.32	NA	13.35	24.74	12.74	50.17	18.47
Clerical	42.84	1.44	NA	1.91	65.17	10.34	17.30	0.56	NA	0.58	5.04	0.36	67.44	5.05
Sales	29.73	2.75	NA	1.30	35.18	3.30	5.66	0.14	NA	0.46	3.75	0.35	44.80	7.74
Craftsmen and production	12.00 3/	--	NA	NA	19.01 3/	--	0.76 3/	--	NA	NA	1.90 3/	--	29.81 3/	--

1/ Number employed as a percentage of total number employed in each occupational category.

2/ Original data was not mutually exclusive of university degrees and above. Therefore, data include intermediary levels of education.

3/ At least a secondary degree or above.

NOTES.—The data on occupations have been standardized according to the International Standard Classification of Occupations (ISCO) published by the International Labor Office in Geneva, 1962.

Since the OECD Standardized Classification of Educational Systems was not devised at the time these data were compiled, the authors adopted their own common classification of the educational data. The levels of education distinguished correspond as much as possible to actual stages in the educational system which are common to the countries selected.

"University degree" is meant to be the first degree obtained. Because of intercountry differences, it was impractical to distinguish a "sub-university level" level. "At least secondary degree - below university degree" includes university drop-outs. In Norway, it was not possible to identify those who had completed secondary education from those who had not.

FREQUENCY OF REPORTING: One-time study.

DATA ALSO AVAILABLE FOR: Argentina, Chile, Ecuador, Egypt, Ghana, Greece, Honduras, Hong Kong, Hungary, Israel, Korea, Pakistan, Panama, Peru, Philippines, Portugal, Puerto Rico, Syria, Uruguay, Yugoslavia, Zambia.

SOURCE: Organisation for Economic Cooperation and Development, Occupational and Educational Structures of the Labour Force and Levels of Economic Development, Further Analyses and Statistical Data, Paris, 1970.

In 1972, the majority of degree recipients in the United States were subsequently employed in jobs related to their training.

Of the total number of persons surveyed, 68.7 percent were employed in work directly related to their major field of study. This observation was particularly apparent for the education field of study (81.7 percent). Although a majority found training-related jobs, a significant percentage took jobs that were not directly related to their major field of study. For example, 54.6 percent of social science majors and 43.2 percent of humanities students did not find jobs that directly utilized their educational training. The survey notes the main reason for this occurrence was that those were the only jobs the workers could find.

Table 3.17

Relationship of Work To Major Field of Study and Use of Training in the United States: 1972

Relationship of work to field of study	All persons	Major field of study Business or commerce	Education	Humanities	Social sciences	All other
Total employed						
Number (thousands)	681	109	206	77	100	189
Percent 1/	100.0	100.0	100.0	100.0	100.0	100.0
Directly related	68.7	61.5	81.7	56.8	45.4	75.4
Used much of training	51.2	27.5	71.3	48.6	28.9	58.3
Used some of training	16.7	33.0	10.4	8.1	16.5	17.1
Not directly related	31.3	38.5	18.3	43.2	54.6	24.6
Used some of training	12.4	25.7	6.4	9.5	21.6	7.5
Used little or none of training	19.0	12.8	11.9	33.8	33.0	17.1
Somewhat related to field	12.8	23.9	6.9	12.2	25.8	6.4
Used some of training	9.3	19.3	5.9	6.8	17.5	3.7
Used little or none of training	3.6	4.6	1.0	5.4	8.2	2.7
Not related to field	18.5	14.7	11.4	31.1	28.9	18.2
Used some of training	3.1	6.4	0.5	2.7	4.1	3.7
Used little or none of training	15.4	8.3	10.9	28.4	24.7	14.4

1/ Percents may not add up to 100 due to rounding.

NOTES.—The study covered 873,000 persons in the civilian non-institutional population who completed the requirements for baccalaureate, first professional and advanced degrees in the year ending June 1972 and who were not enrolled full-time in a college or university in October 1972.

49.8 percent of those people whose job was not directly related to their field of study said that their's was the only job they could find. Other reasons for work not directly related to field of study were: "better opportunity for advancement than in major field" (7.7), "to see if liked kind of work" (7.7), "did not want to work in field" (5.3) and "all other" (29.5).

FREQUENCY OF REPORTING: Data updated irregularly.

OTHER SIMILAR DATA: "Employment of Recent College Graduates, October 1972," Special Labor Force Report 169, U.S. Department of Labor, Bureau of Labor Statistics, 1974.

SOURCE: U.S. Department of Labor, "Labor Market Experience of Recent College Graduates," Anne M. Young, Monthly Labor Review, October 1974.

SECTION FOUR: INCREASED OPTIONS IN EDUCATION

Educational reforms were propelled in part by the process of accommodation to larger numbers of youths, higher enrollments and the upsurge in demand for more education for more young persons. The sheer weight of numbers on the fisc of many nations compelled change.

Still more serious than accommodation to growth in demand were problems confronting the educational institutions in adjusting to (a) the altered attitudes of young persons to the adult community, including schools, and (b) advances in knowledge requiring curriculum and study program reform. Compounding the challenge to the schools of the emergence of a youth life style symbolized by the equalitarian "blue jean" is the slowing down of economic growth in the Western nations and the reduction in new job opportunities. The intense probing of the relation of work and school now underway questions the adequacy of the educational communities' performance. New institutional arrangements are proposed to overcome the checkered performance of the past in easing access to jobs.

Among the changes that educational reform is being asked to cope with are these:

- the widening of occupational and educational choices of today's youths compared with those of decades earlier
- the restricted labor market conditions which define youths' actual opportunity for full-time work
- the postponement of entry into societal participation by extension of the period of education
- the complex job requirements that have given rise to increased credentialing and further extension of the period of schooling and isolation from normal adult life
- the sharp break in size of adjacent age cohorts which has sharply altered the need for educational facilities and teachers and required an adaptability and flexibility not generally characteristic of education.

Consequences of the trends underway may be summarized by underscoring the delay in entry to work and mounting barriers to an adulthood life, on the one hand, and the higher aspirations, on the other.

In this section, reforms to accommodate both to increases in numbers of young persons and to change in job requirements and life style are presented. The emphasis is on easing the transition between school and work.

Exhibit 4.1. Programs Implemented to Alleviate Youth Unemployment in Selected OECD Member Countries: In Educational Systems; Between Educational Systems and Employer; and with Employer Only.

Country	Educational System				Education System and Employer			Employer			
	Vocational counseling	Placement services	Occupational information	Other services	Apprenticeships	Vocational education programs	Training programs with employers	Job creation (private employers)	Job creation (public)	Job subsidies	Other (e.g., mobility transfer)
Belgium	-	-	-	-	-	-	-	-	-	-	-
Canada	X	X	X	-	X	X	X	-	X	X	-
Denmark	-	-	-	-	-	-	-	-	X	-	-
Finland	-	-	-	-	-	X	-	-	-	-	X
France	X	X	X	X	X	X	X	X	-	-	X
Germany	-	-	-	-	X	X	X	-	-	X	-
Great Britain	-	-	-	-	-	-	X	X	X	X	-
Italy	-	-	-	-	-	-	-	-	-	-	-
Japan	X	X	X	-	-	-	-	-	-	-	-
Netherlands	-	-	-	-	X	-	-	-	-	-	-
Norway	X	X	-	-	X	X	-	-	-	-	-
Sweden	X	X	X	-	-	X	X	X	X	X	X

SOURCE: Public Services Laboratory, "A Review of Youth Unemployment Measures in the United States and in Selected OECD Countries," unpublished paper, Washington, D.C., 1977.

Exhibit 4.2. Non-Traditional Forms of Education to Ease the Transition from School to the Working World.

	Belgium	Canada	France	Germany	United Kingdom (England and Wales)	United States
Secondary	Technical and vocational education Lower level Upper level Apprenticeships Artistic education New system - general and technical secondary education Transition classes First degree observation Second degree guidance Third degree consolidation Teacher training Part-time education in various courses	Trade schools (Quebec) Home economic schools (Quebec) Family institutes (Quebec) Technical and vocational composite high schools Apprenticeships Private business colleges Private trade schools Nursing assistant schools	Sections of lycees and other establishments with vocational and technical courses of study - Courses in first cycle - Second cycle long courses - Second cycle short course Agricultural education Apprenticeships National Institutes of Sports Teacher training schools Training for literary careers	General secondary school-economics Type (Wirtschafts gymnasium) Technical secondary education Secondary technical schools (Fachoberschulen) Vocational education Part-time vocational schools for various occupations (Berufsschulen) Vocational extension schools for various occupations (Berufsaufbauschulen) Full-time vocational schools for various occupations (Berufsfachschulen) Specialized technical education for various occupations (Fachschulen)	Courses in comprehensive schools Secondary technical schools Bi-lateral schools Multi-lateral schools Further education (full-time and part-time) non-advanced level courses leading to: - Ordinary national diploma - Ordinary national certificate - City and guild courses Pre-vocational courses Apprenticeships Sandwich courses Block release programs	Vocational courses in junior and senior high schools Vocational programs in high schools Vocational and technical high schools
Higher non-university	Teacher training for: Primary schools Secondary schools Technical schools Higher education Non-university type such as: - Higher art education - Higher technical education Part-time technical education	Post-secondary technical courses Full-time and part-time courses held in provincial educational establishments, such as: - College of Applied Arts and Technology (CAAT-Ontario) - College of General Vocational Education (CEGEP-Quebec) - Community colleges (Manitoba) Trade schools Teacher training Business colleges Nursing schools Various non-university type institutions of post-secondary education, such as: - Institutes of Technology - Religious colleges	Teacher training colleges Courses leading to certificate of proficiency in: - Faculty of Law and Economics - Law Certain schools of engineering Various specialized institutes of higher education ("Grandes Ecoles"), such as - Agricultural colleges for women - Fine arts and architecture schools - Commercial schools - Textile industries - School of international studies Training of higher technicians - The university institutes of technology (IUT) Preparatory courses for the "Grandes Ecoles" Courses for careers in health and social services Training for commercial careers Training for legal careers Training for agricultural careers National conservatory of crafts and trades	Advanced technical education Advanced technical schools (Höhere Fachschulen) for various fields Teacher training (Padagogische Hochschulen) Technical universities (Universitäten Technische) Institutes of higher Education for Fine Arts, Music and Sports Open university	Establishments of further education, such as: National colleges Regional colleges Art establishments Agricultural establishments Technical Colleges and Colleges of Commerce Polytechnics Colleges of education Programs for Certificates in Establishments of Further Education Workers Educational Association Teachers' training Open university Specialists' colleges	High schools, vocational courses 13 and 14th years of studies Junior colleges Community colleges Technical institutes

SOURCE: Organization for Economic Cooperation and Development, Classification of Educational Systems, Paris, 1975.

Short-cycle education was among the reforms designed for the multiple purposes of facilitating access of more young persons to education and accommodating curriculum to job requirements. While burdens of sheer numbers on the fisc suggested these less expensive ways to accommodate demand for post-secondary education, experience indicates that only where quality has been high has the method worked to achieve the educational purposes sought. Similarly, vocational education facilities have been expanded.

But in the wake of broadening of access to general education, apprenticeships have become less, rather than more, important suggesting the divergence between the aspirations and expectations of youths, on the one hand, and the reality of the workforce, on the other.

In the United States where large youth unemployment has extended over a longer period than it has in other industrialized nations, and barriers to formal schooling have been relatively few, career education has taken hold and cooperative education has been revitalized.

The following charts and tables show some of the educational changes made to reduce the costs of expanding educational offerings and to accommodate a better transition from school to work.

List of Charts and Tables

4.1 Enrollment Trends in Short-Cycle and Higher Education and Short-Cycle as a Percent of Total Higher Education in Selected OECD Countries: 1960-70 (table)

4.2 Enrollment in Short-Cycle Higher Education by Field of Study in Selected OECD Countries: Various Years (chart and table)

4.3 Unit Cost Comparison Between Short-Cycle Higher Education and University Education in Selected OECD Countries: Various Years (table)

4.4 Vocational Enrollment as a Percent of Secondary School Enrollment in Selected OECD Countries: 1960, 1970 (chart and table)

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4.6 Enrollment in Vocational Education by Program and by Level in the United States: 1975 (table)

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4.11 Median Earnings of Vocational Training Completers and Non-Completers by Educational Attainment and Occupational Group in the United States: 1970 (table)

4.12 Vocational Training of Unemployed Workers, Self-Employed Persons and Employers and Wage Earners in Selected OECD Countries: 1973 (table)

4.13 Apprentices by Length of Training Course in Germany: 1964, 1969 (table)

Although all selected countries registered growth of enrollments in short-cycle higher education in the 1960's, enrollment as a percentage of total higher education varied among countries.

The percentage of postsecondary students selecting short-cycle higher education is significantly greater in the United Kingdom than in the eight other OECD nations for which data are given. This could be explained by the nature of the polytechnics (a form of SCHE in the United Kingdom) since they are well respected and educationally parallel with the traditional universities. Throughout the 1960's, short-cycle enrollment increased as a percentage of total higher education enrollment in the United States, the United Kingdom and Japan. In Canada, Finland and Sweden, the overall change in this time period was a decline in the proportion of students enrolled in short-cycle higher education. There was little shift in the proportions in France and Germany.

Table 4.1

Enrollment Trends in Short-Cycle and Higher Education and Short-Cycle as a Percent of Total Higher Education in Selected OECD Countries: 1960-70

Country	SCHE enrollments (1960=100)		Total higher education enrollments (1960=100)		Percent of SCHE in total higher education		
	1965/66	1969/70	1965/66	1969/70	1960/61	1965/66	1969/70
Belgium	165	174 1/	162	NA	41.0	41.9	NA
Canada	154	222 2/	186	243 2/	17.5	14.4	15.9
Finland	175	222	170	235	14.7	15.2	13.9
France 3/	193 4/	251	184	255*	14.1	14.7	13.9
Germany 5/	137	143 6/	127	145 6/	17.3	18.7	17.2
Japan	178	316	153	227	11.5	13.4	16.0
Sweden	157	181 6/	194	311 6/	11.2	9.0	6.5
United Kingdom	157	205* 7/	151	175*	49.8	51.9	58.6*
United States	186	327 8/	154	227 8/	12.6	15.2	19.5

* Estimates.
1/ 1966/67.
2/ 1967/68.
3/ The total includes IUT's higher education courses, preparatory classes to the "Grandes écoles" and the "Capacité en droit."
4/ Excluding Medical Sciences and Education.
5/ Excluding "Pädagogische Höchschulen" which are henceforth considered as being university level, and "Hohere Fachschulen" due to lack of statistics.
6/ 1968/69.
7/ Estimate for Northern Ireland only.
8/ 1970/71.

NOTES.—The OECD defines short-cycle higher education as "post-secondary education of a mainly terminal character designed to train students for middle-level manpower positions." Although universities might offer a certain number of short-cycle programs, most of this type of education takes place in post-secondary schools established outside universities. Indeed, most recent statistics no longer reflect a distinction of short-cycle higher education; rather, these figures are included in non-university data presented in the previous section. Figures have been adjusted to conform with the OECD classification of educational systems. Refer to the section entitled "Intercountry Data" for discussion of this classification.
FREQUENCY OF REPORTING: One-time study.
DATA ALSO AVAILABLE FOR: Netherlands, Norway, Spain, Yugoslavia.
OTHER SIMILAR DATA: For 1960/61 and 1965/66, Development of Higher Education - Statistical Survey, OECD, Paris, 1970.

SOURCE: Organization for Economic Cooperation and Development, Short-Cycle Higher Education: A Search for Identity, Paris, 1973.

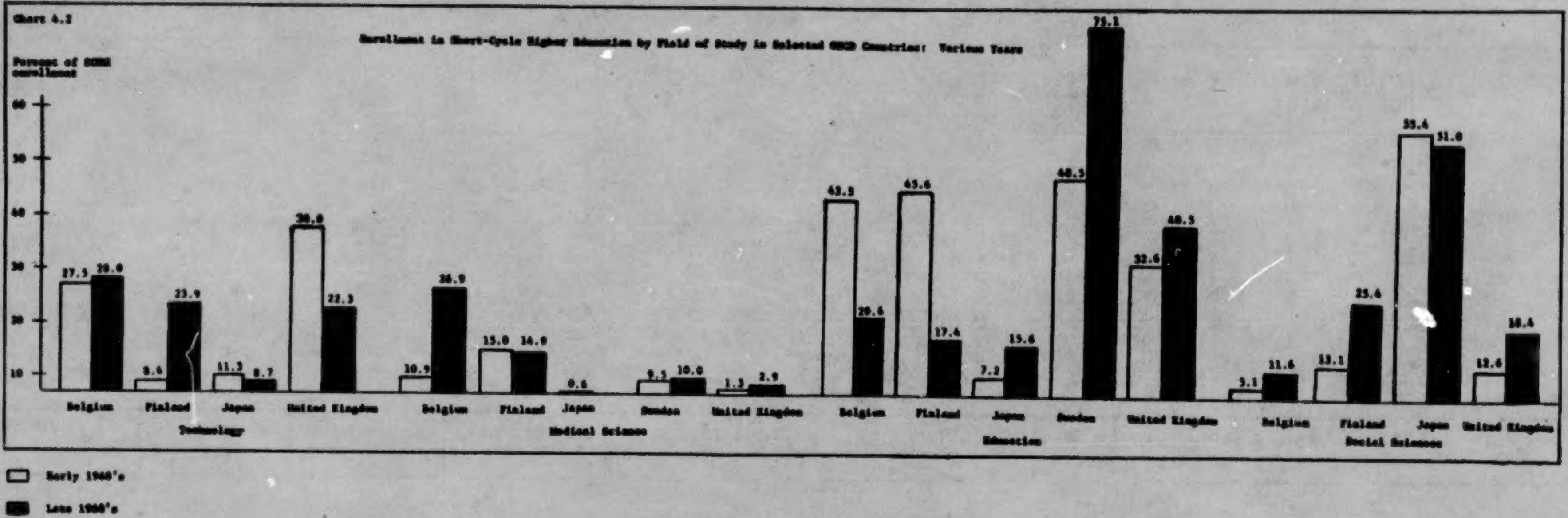
__In the 1960's, significant shifts occurred in many OECD countries among fields of study in short-cycle higher education.__

Enrollment in short-cycle higher education in the 1960's was concentrated in the areas of technology, medical science, education and social science. Shifts among fields of study between the early and late 1960's are most noteworthy in Finland (increase in technology and social science and decrease in education), the United Kingdom (decrease in technology and increase in education and social science) and Belgium (increase in medical science and decrease in education). Nonetheless, certain countries have a concentration of short-cycle enrollment in selected disciplines, such as Sweden's particularly high enrollment in education and Japan's concentration of students in the social sciences.

See Table 4.2

Chart 4.2

Enrollment in Short-Cycle Higher Education by Field of Study in Selected OECD Countries: Various Years



Source of Data: OECD

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Table 4.2.--Enrollment in short-cycle higher education by field of study in selected OECD countries: various years

Country	Year	Technology	Agriculture	Medical sciences	Humanities	Education	Fine arts	Social sciences	Others	Total
Belgium	1960/61	27.5	1.3	10.9	NA	43.5	6.3	5.1	5.4 1/	100.0
	1966/67	28.0	1.3	26.9	NA	20.6	11.0	11.6	0.6	100.0
Finland	1960/61	8.6	NA	15.0	0.1	45.6	5.0	13.1	12.6	100.0
	1969/70	23.9	NA	14.9	4.3	17.4	5.9	25.4	8.2	100.0
Japan	1960/61	11.3	1.7	0.6	19.8	7.2	3.8	55.4	0.2 3/	100.0
	1968/69	8.7	1.4	NA	18.9	15.6	4.4	51.0	NA	100.0
Sweden	1960/61	NA	1.6	9.5	NA	48.5	11.1	18.8	10.5	100.0
	1969/70	NA	0.7	10.0	NA	75.1	9.5	NA	4.7	100.0
United Kingdom 2/	1964/65	38.0	0.0	1.3	1.0	32.6	3.6	12.6	10.9 4/	100.0
	1969/70	22.3	0.4	2.9	1.4	40.5	5.3	18.4	8.8 5/	100.0

1/ Including architecture.
2/ England and Wales only.
3/ Pure Science.
4/ Including "Pure Science": 6.1 percent.
5/ Including "Law": 1.2 percent and "Pure Science": 5.1 percent.

NOTES.—Figures have been adjusted to conform with OECD definition and models of short-cycle higher education to facilitate intercountry comparisons. See Notes to Table 4.1 for further discussion of short-cycle higher education.
FREQUENCY OF REPORTING: One-time study.
DATA ALSO AVAILABLE FOR: Spain, Yugoslavia.

SOURCE: Organization for Economic Cooperation and Development, Short-Cycle Higher Education: A Search for Identity, Paris, 1973.

Short-cycle higher education costs less than university education.

Although percentages vary, short-cycle higher education has a lower unit cost than university education in all of the following countries for which data are available. The highest percentage is attributable to the United Kingdom (81 percent) and the lowest to the United States public sector (31 percent).

Table 4.3

Unit Cost Comparison Between Short-Cycle Higher Education and University Education in Selected OECD Countries: Various Years

Country	Year	SCHE	University education	SCHE/Univ.
Canada (Can. $)	1969		3,210	
Ontario		1,728 3/		54
Quebec		1,150 4/		36
France (Fr.)	1968	1,388 1/	3,981	35
Norway (Kr.)	1970	8,000	15,000	53
United Kingdom (£)	1967	874 2/	1,076	81
United States ($)	1969			
- Public		535	1,714	31
- Private		860	1,968	44

1/ Technical higher education (excluding IUT's).
2/ Further education.
3/ CAAT.
4/ CEGEP.

NOTES.—Unit cost is total expenditures divided by the number of students. Data gathered by the OECD from national sources and not adjusted to any standardized classification.
FREQUENCY OF REPORTING: One-time study.
DATA ALSO AVAILABLE FOR: Yugoslavia.

SOURCE: Organization for Economic Cooperation and Development, Short-Cycle Higher Education: A Search for Identity, Paris, 1973.

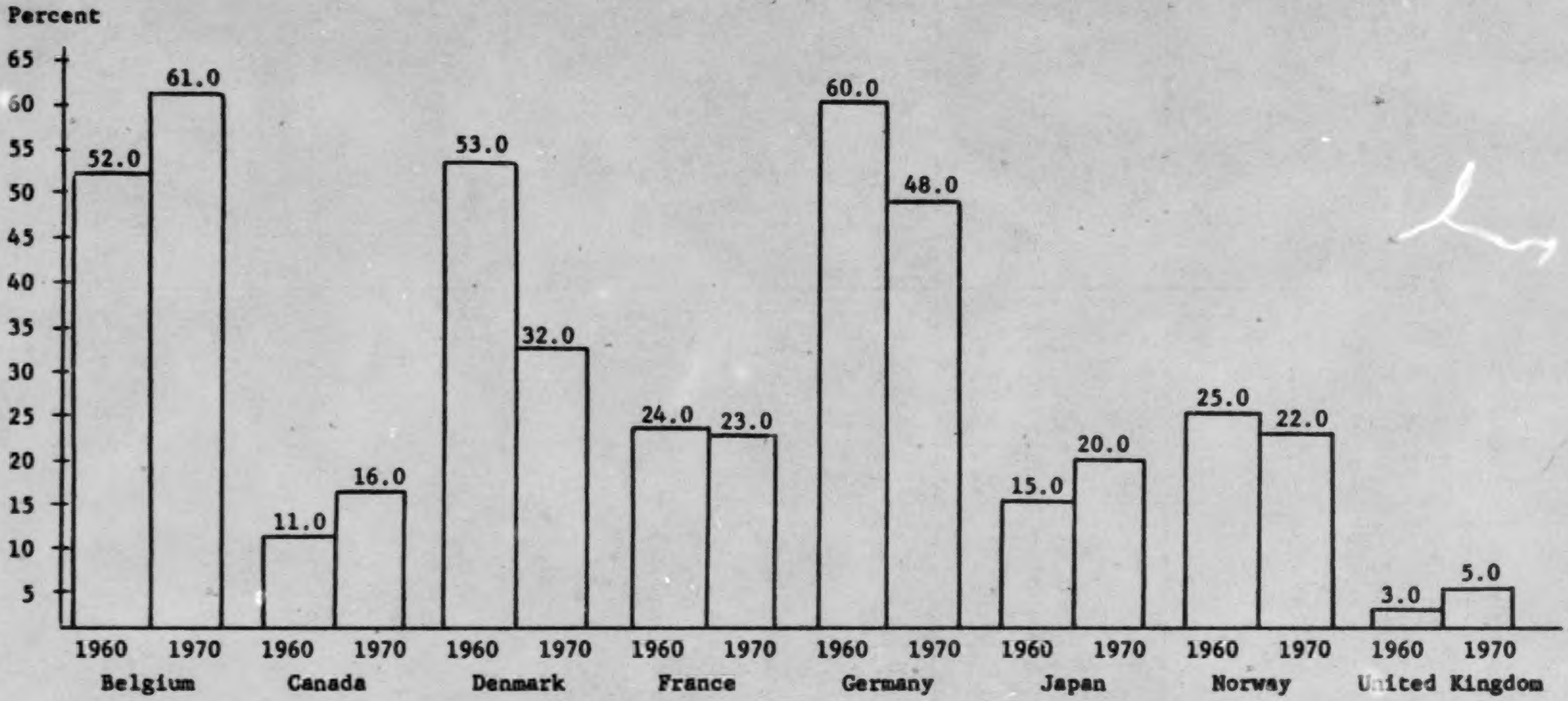
No trend can be discerned in vocational enrollment at the secondary school level among the selected industrialized countries from 1960 to 1970.

France, Germany, Norway and Denmark all show a decline in vocational education enrollment as a percent of total secondary school enrollment from 1960 to 1970. The remaining countries exhibit moderate increases in the percents for the same time period.

See Table 4.4

Chart 4.4

Vocational Enrollment as a Percent of Secondary School Enrollment in Selected OECD Countries: 1960, 1970



Source of Data: The World Bank

Table 4.4.--Vocational enrollment as a percent of secondary school enrollment in selected OECD countries: 1960, 1970

Country	1960	1970
Austria	71.0%	56.0%
Belgium	52.0	61.0 1/
Canada	11.0	16.0 2/
Denmark	53.0	32.0
Finland	17.0	30.0
France	24.0	23.0 3/
Germany	60.0	48.0
Italy	21.0	26.0
Japan	15.0	20.0
Norway	25.0	22.0 4/
Sweden	32.0	35.0
Switzerland	NA	32.0
United Kingdom	3.0	5.0 5/

1/ Data for 1968.
2/ Data for 1965.
3/ Data for 1969.
4/ Excludes certain institutions previously shown under second level and now classified under third level.
5/ England and Wales data for 1969.

NOTES.—Vocational enrollment rates indicate vocational enrollment as a percentage of the total secondary school enrollment (general, vocational and teacher training). Post-secondary enrollments are not considered here. The percentages should not be seen as indicating absolute numerical increases or decreases in vocational enrollments. They only show the relative change in vocational enrollments at the secondary school level.

Vocational institutions include those for technical, industrial, arts and crafts, trade, commercial, agricultural, fishery, forestry, domestic science, music and fine arts training. They may operate either independently or as departments and classes attached to institutions of other types or levels. General education and teacher training cover both schools and other secondary teaching institutions. Correspondence courses are generally excluded. Intercountry comparisons from this table should be treated with caution as national definitions and structures in the educational system differ.

FREQUENCY OF REPORTING: Data updated irregularly.
DATA ALSO AVAILABLE FOR: World Bank Group countries.
OTHER SIMILAR DATA: UNESCO Statistical Yearbook.

SOURCE: World Bank Data Files, World Tables, Johns Hopkins University Press, Baltimore, 1976.

The United States has registered significant increases in enrollments in vocational education in the past decade.

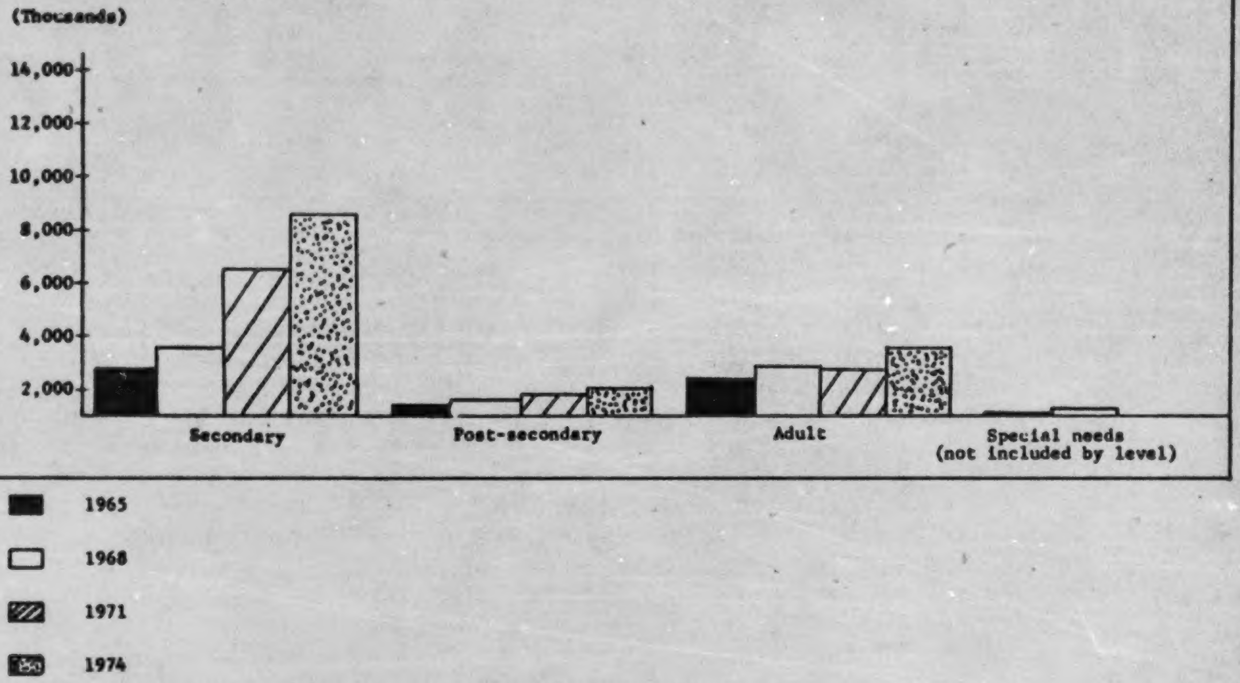
Vocational education has experienced significant growth in the U.S. particularly after the Vocational Education Amendments of 1968. The full impact of this Act was not apparent until Fiscal Year 1971 since funds first became available late in the 1970 Fiscal Year.

Even though total secondary enrollment has stabilized (Section 3), the number of secondary students enrolled in vocational education continues to increase. In 1974, 47.2 percent of the total secondary population (grades 9-12) were enrolled in programs of vocational education and at the present rate of growth is projected to reach 69.4 percent in 1979. When considering only vocational programs which prepare for gainful employment, enrollment in vocational programs increased from 26.5 percent in 1972 to 33.1 percent in 1974. The recent emphasis on prevocational programs has resulted in an increased number of junior high school enrollments.

See Table 4.5

Chart 4.5

Total Enrollments in Vocational Education in the United States: 1965, 1968, 1971, 1974



Source of Data: U.S. Department of Health, Education, and Welfare

Table 4.5.--Total enrollments in vocational education in the United States: 1965, 1968, 1971, 1974

	1965		1968		1971		1974	
	Number (In thousands)	Percent of total vocational enrollments	Number (In thousands)	Percent of total vocational enenrollments	Number (In thousands)	Percent of total vocational enenrollments	Number (In thousands)	Percent total vocational enenrollments
Secondary	2,819	51.9%	3,843	51.0%	6,495	61.9%	8,434	62.3%
Postsecondary	207	3.9	593	7.9	1,141	10.9	1,573	11.6
Adult	2,379	43.8	2,987	39.7	2,860	27.3	3,549	26.2
Special needs (not included by level)	26	0.5	111	1.5	--	--	--	--
Total	5,431	100.0 1/	7,534	100.0 1/	10,495	100.0 1/	13,556	100.0 1/

1/ Percents may not add up to 100 due to rounding.

NOTES.--Statistical information was derived from annual reports published by the U.S. Office of Education, Division of Vocational and Technical Education, and unpublished data compiled by the Program Support Branch from state annual reports and state plan projections. Several changes have occurred over the years in the vocational education reporting system. The 1968 Amendments to the Vocational Education Act stipulated programs specifically for the disadvantaged and for the handicapped. Starting in 1970, persons who were disadvantaged or handicapped receiving special services were included in the enrollment levels and the totals. Enrollment figures represent unduplicated totals (e.g., a person is counted only once even though he may be enrolled in several courses).

The definitions used by the Department of Health, Education, and Welfare are: "secondary" - a program designed for high school youths, including grades 9 through 12; "post-secondary" - a program designed primarily for youths or adults who have completed or left high school and who are available for an organized program of study in preparation for entering the labor market; "adult" - preparatory or supplementary; the latter two are part-time programs to provide retraining or updated training; "special needs" - programs designed for the disadvantaged and handicapped.

FREQUENCY OF REPORTING: Annual.

OTHER SIMILAR DATA: Annual Reports, U.S. Department of Health, Education, and Welfare, Office of Education, Division of Vocational and Technical Education, 1965-1974.

SOURCE: U.S. Department of Health, Education, and Welfare, Office of Education, Bureau of Occupational and Adult Education, Office of Adult, Vocational, Technical and Manpower Education, Division of Vocational and Technical Education, Trends in Vocational Education, Fiscal Year 1974, Washington, D.C., 1975.

Occupational programs account for the majority of vocational education enrollments, especially at post-secondary and adult levels.

At the post-secondary and adult levels, occupational programs accounted for most of the vocational education enrollment, especially the office and trades programs. At the secondary level, prevocational programs and consumer and homemaking programs were also popular.

Secondary school students accounted for the majority of the enrollment in most vocational education programs. Exceptions were distribution, health and technical programs.

Table 4.6

Enrollment in Vocational Education by Program and by Level in the United States: 1975

Program	Total		Secondary level		Post-secondary level		Adult level	
	Number	Percent of program in level	Number	Percent of program in level	Number	Percent of program in level	Number	Percent of program in level
Grand total (unduplicated)	15,340,426	100.0% 1/	9,426,376	100.0% 1/	1,889,946	100.0% 1/	4,024,104	100.0% 1/
Occupational programs	9,380,050	61.2	4,466,493	47.4	1,814,669	96.1	3,098,888	77.0
Agriculture	1,012,595	6.6	670,530	7.2	59,125	3.2	282,940	7.1
Distribution	873,224	5.7	353,208	3.8	163,500	8.7	356,516	8.9
Health	616,638	4.1	103,315	1.1	263,229	14.0	250,094	6.3
Occupational home economics	462,683	3.1	231,324	2.5	53,961	2.9	177,398	4.4
Office	2,951,065	19.3	1,764,771	18.8	531,048	28.1	655,246	15.3
Technical	447,336	3.0	36,758	0.4	269,268	14.3	141,310	3.6
Trades and industry	3,016,509	19.7	1,306,587	13.9	474,538	25.1	1,235,384	30.7
Special programs	2,821,921	18.4	2,482,150	26.4	57,219	3.1	282,552	7.1
Prevocational	1,834,179	12.0	1,809,172	19.2	12,249	0.7	12,758	0.4
Prepostsecondary	50,143	0.4	50,143	0.6	NA	NA	NA	NA
Remedial	101,855	0.7	47,198	0.5	37,387	2.0	17,270	0.5
Industrial arts	368,551	2.4	367,462	3.9	172	... 2/	917	0.1
Volunteer fireman	184,146	1.2	15	... 2/	80	... 2/	184,051	4.6
Other N.E.C.	296,895	2.0	212,152	2.3	17,108	0.9	67,635	1.7
Consumer and homemaking	3,283,857	21.4	2,562,306	27.2	25,970	1.4	695,581	17.3

1/ Percents may not add up due to duplicate program enrollments.
2/ Percent is less than .01.

NOTES.—The vocational education program under the Vocational Education Act of 1963, as amended, is conducted in each state in accordance with an approved state plan. All states and outlying areas of the United States participate in the program. The figures in this table are taken from a report containing national summary data compiled from Fiscal Year 1975 annual reports submitted by all states except American Samoa and Trust Territory, in the administration of vocational education. The "grand total" figure is an unduplicated enrollment number (persons may be enrolled in more than one program but are counted only once). Secondary level programs are those in general or comprehensive high schools for grades 7, 8, 9-12 (depending on the state). Post-secondary level programs are for high school leavers or completers who are available for full-time attendance. Adult level programs are part-time programs to retrain or update training.
FREQUENCY OF REPORTING: Annual.

SOURCE: U.S. Department of Health, Education, and Welfare, Office of Education, Bureau of Occupational and Adult Education, Office of Adult, Vocational, Technical and Manpower Education, Division of Vocational and Technical Education, Summary Data Vocational Education Fiscal Year 1975, Washington, D.C., 1976.

The most vocational training in Europe was completed by the 25-34 year old age group in 1973.

Individuals age 25-34 in 1973 had a higher completion rate for vocational training, both inside and outside the school system (23 and 32 percent, respectively), than any other age group. Another 11 percent of this age group were undergoing training at the time of the survey. Although the 18-24 year old age group had a lower completion rate, an additional 30 percent were still in some type of training as the survey was being taken.

These data also exhibit the increase in both general and vocational education over the last 50 years. Except for Germany and Luxembourg, the proportion of the population having completed general school training decreased as a function of age.

Table 4.7

Breakdown of Population by Age and Type of Training Completed in Selected OECD Countries: 1973

	Belgium	France	Germany	Italy	Luxembourg	Netherlands	Average
18-24 year olds 1/							
General schooling	92.8	81.6	90.1	82.7	96.3	98.8	86.6
Vocational schooling	33.9	18.8	9.6	16.5	11.6	41.2	18.1
Basic vocational	3.6	15.3	45.0	6.5	16.5	5.3	20.2
Further vocational	1.4	4.9	2.8	0.6	3.5	3.1	2.8
25-34 year olds 2/							
General schooling	92.6	76.6	89.9	79.0	93.5	98.1	84.2
Vocational schooling	35.6	25.4	18.3	16.6	18.1	46.8	22.8
Basic vocational	5.7	17.6	56.0	5.9	19.4	5.9	25.4
Further vocational	3.3	11.1	7.7	1.3	6.8	8.1	6.6
35-49 year olds 3/							
General schooling	88.7	65.4	91.0	75.3	95.0	97.9	80.2
Vocational schooling	21.1	12.7	14.8	10.3	12.9	36.0	14.5
Basic vocational	4.4	12.1	48.1	3.0	17.1	2.8	20.3
Further vocational	3.2	9.2	8.0	1.2	6.9	8.1	6.1
50 years or older 4/							
General schooling	85.1	59.1	91.1	62.4	96.9	97.4	74.7
Vocational schooling	11.7	6.8	12.8	6.9	8.6	23.2	10.1
Basic vocational	2.7	6.5	40.5	1.4	14.2	1.2	15.9
Further vocational	2.1	5.5	6.3	0.5	6.1	5.3	4.1

1/ 18-24 year olds constitute 13 percent of the total combined population of the six countries.
2/ 25-34 year olds constitute 20 percent.
3/ 35-49 year olds are 20 percent.
4/ 50 years or older constitute 30 percent.

NOTES.—UNESCO's International Standard Classification of Education (ICSED) was the basis for the definitions used in the survey from which these data were taken. The general education system is divided into two main tenets: general schooling, which encompasses the primary and secondary levels of schooling, generally compulsory; and vocational schooling, which covers the lower and upper secondary levels. Outside the general education system is basic vocational training which follows school education. Further vocational training includes post-educational training after commencement of working life, adult vocational training, retraining, etc.

FREQUENCY OF REPORTING: One-time study.

OTHER SIMILAR DATA: No. 1/1975, Social Statistics, European Community, Luxembourg.

SOURCE: Statistical Office of the European Communities, EUROSTAT, Social Statistics 1973, General and Vocational Training, Luxembourg, 1975.

In 1973, in the six countries for which data are available, a majority of those who received vocational training got it in an enterprise.

Vocational training was received in an enterprise by more than half the relevant population in the countries; however, national percentages varied greatly. Of those people who had received training in Germany, 90.5 percent received it within an enterprise, while only 6.6 percent of the Belgian population had received training within an enterprise. Where competition with specialized institutions outside the general school system existed, enterprises accounted for 83 percent of basic training and 43 percent of further training.

Table 4.8

The Enterprise and Vocational Training in Selected OECD Countries: 1973

Proportion of the relevant population having completed:	Belgium	France	Germany	Italy	Luxembourg	Netherlands	Average
Vocational training received within enterprises (percent of all those who received vocational training)	6.6%	26.2%	90.5%	12.3%	38.8%	13.4%	54.9%
Basic training received within enterprises (percent of all those who received basic training)	29.8	38.9	96.6	36.9	57.2	71.1	82.9
of which:							
- training was provided as part of contract	18.6	30.4	91.4	22.3	46.1	52.7	72.2
- training was further training	26.9	46.2	49.6	50.7	37.8	46.6	47.4

NOTES.—In this table, both basic vocational training and further training are considered to be outside the general education system; in other words, not taken with general academic studies. Basic vocational training immediately follows compulsory or post-compulsory school education and can be provided by enterprises, with or without a contract, or by specialized institutions.

Further training can be taken at any time. It includes post-educational training after commencement of working life, adult vocational training, retraining, etc.

Training provided as part of contract refers to a signed agreement between the apprentice and employer specifying certain agreements, such as length of training, wage, type and objectives of vocational training, etc.

FREQUENCY OF REPORTING: One-time study.

OTHER SIMILAR DATA: No. 1/1975, Social Statistics, European Community, Luxembourg.

SOURCE: Statistical Office of the European Community, EUROSTAT Social Statistics 1973, General and Vocational Training, Luxembourg, 1975.

In 1974, vocational and technical job training in the United States was relatively successful.

Job training offered in vocational and technical programs in United States high schools was at least as successful in its goals as college preparatory and general high school curricula. These figures show that 80 percent of those who looked for jobs related to their training from the high school class of 1972 were successful in their attempts. The success rate was roughly comparable to this for all areas of training (agriculture, business, distributive education, health and trade/industrial training) except home economics.

Table 4.9

Usefulness of High School Training: Percentage Distribution of Use and Non-Use of High School Job Training by the Class of 1972 1/, United States: 1974

		All programs	Academic	General	Vocational and technical 3/	Specific areas of training					
						Agriculture	Business/ office	Distributive education	Health	Home economics	Trade/ Industrial
(A) Used training in job activity	Total	59	60	53	63	56	70	52	63	36	52
	Male	52	50	53	53	59	47	59	4/	4/	52
	Female	63	65	53	67	4/	71	48	62	35	55
(B) Did not use training but looked for work related to it	Total	16	14	16	16	15	16	21	17	22	17
	Male	15	14	13	17	12	21	17	4/	4/	17
	Female	16	14	18	16	4/	15	24	17	23	19
(C) Did not use training and never looked for related work	Total	25	26	31	21	29	14	27	20	42	31
	Male	33	36	34	30	29	32	25	4/	4/	31
	Female	20	21	29	16	4/	13	28	21	43	26
Success rate 2/	Total	.79	.81	.77	.80	.79	.81	.71	.79	.62	.75
	Male	.78	.78	.80	.76	.83	.69	.78	4/	4/	.75
	Female	.80	.82	.75	.80	4/	.83	.67	.78	.60	.74

1/ Based on response of graduates to a survey one and one-half years after graduation; Question: "Since leaving high school, have you worked in a job where you expected to use this training?"

2/ Those who used job training divided by the sum of those who used it and those who unsuccessfully looked for work related to their training.

3/ 22 percent of those in this study (18 percent of males, 26 percent of females) were enrolled in these job training areas rather than in academic or general courses of study in high school.

4/ Percentages omitted because of small numbers in these areas.

NOTES.—Data are taken from the results of the National Center for Educational Statistics' National Longitudinal Study of the High School Class of 1972.
FREQUENCY OF REPORTING: One-time study.

SOURCE: U.S. Department of Health, Education, and Welfare, Office of Education, National Center for Education Statistics, Bulletin, Washington, D.C., August 29, 1975.

In 1974, in the United States, the majority of those students who completed a program in preparatory vocational education and were available for placement became employed in training related fields.

Of the total program completions reported, 59.7 percent were available for placement, and of those, 91.4 percent were employed, 68.0 percent in the field in which they were trained. As would be expected, those students completing post-secondary preparatory vocational education programs were most likely to be available for placement and had a higher percentage of employment in training related fields. The primary reason for unavailability for placement for both secondary and postsecondary students was to continue full-time school.

Table 4.10

Followup of Program Completions in Preparatory Vocational Education in the United States: 1974 1/

	Total, All programs 2/	Secondary	Postsecondary	Adult (Preparatory)
Completed program requirements	100.0	100.0	100.0	100.0
Available for placement	59.7	54.1	71.4	62.9
Not available for placement	25.4	32.5	15.1	14.5
Status unknown	14.9	13.4	13.5	22.6
Not available for placement	100.0	100.0	100.0	100.0
Continued full-time school	68.2	73.7	60.5	35.2
Other reasons	31.8	26.3	39.5	64.8
Available for placement	100.0	100.0	100.0	100.0
Employed in field trained or related (full-time)	68.0	63.7	76.7	67.1
Other employment	23.4	27.3	15.8	23.9
Unemployed	8.6	9.0	7.5	9.0

1/ Status of persons as of November 1974.
2/ No reports for California, Connecticut, Maryland, New York, Pennsylvania and Puerto Rico.

NOTES.—The vocational education program under the Vocational Education Act of 1963, as amended, is conducted in each state in accordance with an approved state plan. All states and outlying areas of the United States participate in the program. The report from which these figures were taken contains national summary data compiled from Fiscal Year 1974 annual reports submitted by all states in the administration of vocational education.
FREQUENCY OF REPORTING: Annual.

SOURCE: U.S. Department of Health, Education, and Welfare, Office of Education, Bureau of Occupational and Adult Education, Office of Adult, Vocational, Technical and Manpower Education, Division of Vocational and Technical Education, Summary Data Vocational Education Fiscal Year 1974, Washington, D.C., 1975.

In the United States in 1970, completing vocational training was monetarily advantageous for individuals with less than a completed college education, but not for college completers.

1970 data for the United States show that completers of vocational training with 0-15 years of schooling had higher median earnings than those who did not complete vocational training for all occupational categories. The reverse was true for those persons with 16 or more years of education.

Table 4.11

Median Earnings of Vocational Training Completers and Non-Completers by Educational Attainment and Occupational Group in the United States: 1970

Occupational group	Median earnings of workers with educational attainment of:					
	Less than 12 years		12-15 years		16 and more years	
	Completed vocational training	Did not complete	Completed vocational training	Did not complete	Completed vocational training	Did not complete
All occupations	$6,868	$5,642	$ 7,756	$6,943	$10,820	$11,195
Professional, technical and kindred workers	7,999	6,622	8,532	8,219	10,951	10,756
Managers and administrators, except farm	9,275	7,980	10,399	10,001	14,125	14,727
Salesworkers	6,450	5,173	7,644	7,095	11,124	12,026
Clerical and kindred workers	5,888	5,439	5,937	5,550	7,279	7,724
Craftsmen, foremen and kindred workers	8,737	7,503	9,659	8,729	10,365	11,531
Operatives, except transportation	6,622	5,550	7,365	6,407	7,241	7,661
Transportation equipment operatives	7,307	6,981	7,897	7,820	7,118	7,352
Laborers, except farm	6,008	5,501	6,854	6,667	6,617	6,783
Farm workers	4,218	3,573	5,841	5,698	6,512	7,481
Service workers, except private household	4,554	3,779	5,398	4,744	5,974	7,194
Private household workers	1,513	1,158	1,523	1,223	1,760	1,424

NOTES.—Data are for persons 25-64 years old. The statistics are based on a 5 percent sample adjusted to represent the total population. Included in the definition as "vocational training" are formal vocational training programs completed in high school, through an apprenticeship program, in a school of business, in a nursing school or trade school, in a technical institute, in the armed forces or in Job Corps training. Excluded from "vocational training" programs are single courses which were not part of an organized program of study, on-the-job training, training in company schools, training by correspondence and basic training in the armed forces. Persons who reported having completed a vocational training program were asked to designate their main field of vocational training.
FREQUENCY OF REPORTING: Annual.
OTHER SIMILAR DATA: 1970 Census of Population.

SOURCE: House Committee on Education and Labor, Hearings before the Subcommittee on Elementary, Secondary and Vocational Education, Vol. III, Vocational and Occupational Education, Washington, D.C., 1976.

The unemployed are less likely to have vocational training than the gainfully employed.

The proportion of workers with vocational training varies across countries because of differences in school systems but in most cases unemployed workers are less likely to have vocational training at any level than either self-employed or wage earners.

Overall, in the countries for which data are available, 33 percent of the employed wage earners had some type of vocational training, while only 28 percent of the unemployed had training of any kind. For all levels except the third, more 18-24 year olds had received some training than the rest of the unemployed population.

Table 4.12

Vocational Training of Unemployed Workers, Self-Employed Persons and Employers, and Wage Earners in Selected OECD Countries: 1973

(Percent of corresponding population)

	Vocational training obtained:				
	Within the general education system			Outside the general education system	
	Second lower	Second upper	Third	Basic	Further
Belgium					
Unemployed					
All ages	10.6%	6.0%	3.3%	3.6%	3.9%
Age 18-24	18.9	9.8	3.4	4.1	NA
Self-employed and employers 1/					
All ages	11.0	3.9	7.0	7.2	3.6
Wage earners 1/					
All ages	13.4	7.4	6.8	5.6	3.9
France					
Unemployed					
All ages	7.6	1.8	6.0	13.1	7.1
Age 18-24	83.2	1.3	3.8	16.7	NA
Self-employed and employers 1/					
All ages	5.7	1.6	6.5	12.1	6.6
Wage earners 1/					
All ages	9.9	2.4	6.4	13.8	11.2
Germany					
Unemployed					
All ages	5.9	0.6	3.8	34.1	6.3
Age 18-24	5.2	-- 2/	2.6	34.0	NA
Self-employed and employers 1/					
All ages	12.1	1.2	12.1	36.4	11.9
Wage earners 1/					
All ages	7.1	0.8	6.7	54.0	8.6
Italy					
Unemployed					
All ages	1.6	12.9	4.9	6.3	0.6
Age 18-24	2.2	17.6	2.1	9.0	NA
Self-employed and employers 1/					
All ages	1.6	3.3	4.0	4.3	0.9
Wage earners 1/					
All ages	2.4	7.8	3.9	7.1	2.1
Netherlands					
Unemployed					
All ages	25.0	4.0	3.6	2.2	4.7
Age 18-24	31.3	7.1	1.1	1.7	NA
Self-employed and employers 1/					
All ages	32.0	7.8	5.3	3.5	9.5
Wage earners 1/					
All ages	27.6	6.4	6.6	5.5	10.0

1/ Data not available for 18-24 year olds.
2/ Less than 0.1 percent.

NOTES.—Although the overall unemployment rate in the European community was low in 1973, 1.6 percent for men and 2.3 percent for women, individual country rates varied greatly. Four percent of the Italian labor force, and 0.5 percent of the German, French and Dutch labor forces stood idle. Unemployment in Belgium was approximately 2 percent.

Since the percentages reflect that part of the corresponding population, and since the total number surveyed was small, these figures should be interpreted with caution. Also, over half of the unemployed persons registered in the European community, at the time these data were taken were taken were Italian, while unemployment was practically non-existent in Germany.

Three main types of training were considered: schooling, basic vocational training and further vocational training. Schooling was subdivided into three levels:

- at the first level are schools which provide a basic education which is compulsory and generally lasts five years.
- at the second level, there are two stages, each of which generally lasts 3-4 years. In most countries, the lower stage corresponds to the minimum compulsory educational level and the upper stage takes students to the level required for university entrance or for pursuing any other type of higher education.
- the third level includes the universities and all other types of higher education.

In addition, there are two types of schooling. General education is comprised of the first and second level of general school studies; school vocational training includes the secondary and third levels of vocational school studies and also teacher training.

Basic vocational training immediately follows school education, whether this was general or vocational. It can be provided by enterprises, with or without a contract, or by specialised institutions.

Further training can also be considered vocational training insofar as it is provided in the same conditions, but can be followed at any time. It includes post-educational training after commencement of working life, adult vocational training, retraining, etc.

For all definitions, the aim was to achieve concordance with the UNESCO International Standard Classification of Education (ISCED). However, since training systems and classifications differ from one country to the next, caution must be exercised when interpreting the data. The methods and definitions used are described in No. 1/1973 of the Social Statistics series of the European Economic Community.

FREQUENCY OF REPORTING: One-time study.

OTHER SIMILAR DATA: No. 1/1975, Social Statistics, European Community, Luxembourg.

SOURCE: Statistical Office of the European Community, EUROSTAT Social Statistics 1973, General and Vocational Training, Luxembourg, 1975.

From 1964 to 1969, there was a slight reduction in the number of apprentices in Germany.

In 1969, the majority of apprentices were enrolled in commercial trades with the second largest group in handicraft trades. Although the total number of apprentices decreased, the percent of males who took 3-1/2 or more years to complete their course rose from 37.9 percent in 1964 to 42.0 percent in 1969.

Table 4.13

Apprentices by Length of Training Course in Germany: 1964, 1969

(Number and Percent)

		1964			1969		
		Length of course			Length of course		
		Total	Years 2 - 3	Years 3-1/2 and more	Total	Years 2 - 3	Years 3-1/2 and more
Chambers of Industry and Commerce	Male	406,412	263,795	142,617	403,122	258,351	144,771
		100%	64.9%	34.1%	100%	64.1%	35.9%
	Female	299,328	291,835	7,493	275,800	267,155	8,645
		100	97.5	2.5	100	96.9	3.1
Chambers of Handicrafts	Male	351,999	226,926	125,073	342,745	164,172	178,573
		100	64.5	35.5	100	47.9	52.1
	Female	98,782	96,108	2,674	90,569	87,280	3,289
		100	97.3	2.7	100	96.4	3.6
Chambers of Agriculture	Male	25,897	1,194	24,703	34,480	34,480	--
		100	4.6	95.4	100	100	--
	Female	11,380	267	11,113	11,386	11,386	--
		100	2.3	97.7	100	100	--
Other	Male	40,418	20,635	19,783	28,870	12,113	16,757
		100	51.1	48.9	100	42.0	58.0
	Female	19,808	19,808	--	50,361	50,361	--
		100	100	--	100	100	--
Total	Male	824,726	512,550	312,176	809,217	469,116	340,101
		100	62.1	37.9	100	58.0	42.0
	Female	429,298	408,081	21,280	428,116	416,182	11,934
		100	95.0	5.0	100	97.2	2.8

NOTES.—In Germany, apprentices do not receive wages but rather a fairly small training allowance which is paid partly by the employer and partly by the government. It is not clear whether the relatively low pay of apprentices influences employers' policies.

In Germany, approximately 60 percent of young people participate in the apprenticeship system and 25-30 percent participate in other forms of training or further education.

Apprenticeships are compulsory for all young people who have completed the 9th year of schooling and who are not continuing full-time education. Usually, courses in theory take place once a week and supplement practical training given by the firm. This is generally referred to as the dual system. The system requires a contract.

FREQUENCY OF REPORTING: One-time study.

SOURCE: Organization for Economic Cooperation and Development, Educational Policy and Planning: Germany, Paris, 1972.

SECTION FIVE: TOWARD GREATER EQUALITY IN EDUCATION

The striving for equality that characterizes the break with the past throughout the industrialized world has had its impact on official educational and labor market policies. Remedial measures have indeed been sought for three classes of inequalities--disparities between social classes (and races), disparities between men and women, and disparities between regions which in the European context has meant mainly between capital city and the rest of the nation.

Concepts of Equality

Until fairly recently, it was assumed that concerns about equality of opportunity in education were met by compulsory provision of schooling at general taxpayer expense. Similarly, general legislation against job discriminatory practices and equality of pay for equal work were assumed to meet problems of equal opportunities in the workforce. Examination of outputs and of program impacts showed that the educational system, even where highly centralized as in France, does not produce equitable results. For example, variations between agricultural and non-agricultural areas in the proportion of young persons graduated persisted even when the school program and school resources were uniform throughout the nation. Persistent differences in earnings between men and women and concentration of men in top posts--professional, administrative and managerial--cast doubt on the effectiveness of official policies in stamping out this type of job discrimination.

Social stratification in each country occurs at the secondary school level. Expanded access to secondary schooling thus has been significant in achieving as much progress as has been made. The existing data show that as educational opportunities at secondary and higher levels were expanded, the social composition of the student body changed. The relative advantage in access to university education for the upper strata has diminished. But disparities remain very marked; young persons from poor families continue to be heavily underrepresented.

The data also show that increased participation of women in higher education has been significant. Women, however, are practically excluded from certain fields, such as technology, and tend to be in short courses or the humanities. Sex-differentiated choices of studies might be explained by an unequal distribution of interests between the sexes and by prevailing social practices as regards the distribution of work between the sexes. These practices themselves create specific conditions in the labor market, such as fewer opportunities for women in particular careers, and thus they influence the choice of studies and reinforce the divisive process.

Individuals differ in their capacity for education and for productive employment. Otherwise uniform resources, applied to development of intellectual skills--given individual differences--will produce differences in outcomes. Sorting out of individuals in the educational system and in the economy in accord with their specialized talents may be society's largest task. But in keeping with the ideas of Western societies, such sorting out is primarily an individual choice, backed by the information that is essential to inform the choice.

In most nations, equality of public resources behind the schooling of a child has been a principal objective. In decentralized nations, such as the United States, such equality has been encouraged and in some places mandated by the courts. Variations in quality of education have stimulated still another effort--compensatory education--in which the tax resources for the education of the disadvantaged child are enlarged. Resources become more than equal in the interest of greater equality in educational outcomes.

Old beliefs, however, about the salutary effects of general increases in the level of schooling on income inequality are being challenged. It appears that increases, both in the level of education and in the rate of return to education, contribute to greater income inequality. Equal proportional increases in the amount of education obtained at each level of schooling (e.g., high school and college) result in absolutely greater increases in the earnings of those already more educated and with higher incomes. The absolute size of their investment is larger and their total returns are higher assuming equal rates of return at each level. Of course, a more equal distribution of schooling itself will tend to equalize the distribution of earnings. And, in fact, this has been happening.

Indices of Educational Equality

Most indices fall short of providing adequate measures of educational equality. Among the standards for equality are these:

- equal expenditures per child
- equal "real resource" costs per school child
- equal costs per child at a specified level of education
- equal costs per child at a specified level of education and for a specified educational program or course.
- uniform scores under standardized achievement tests.

Also used as measures are enrollment and graduation figures such as the following:

- percentages of children admitted to secondary education
- percentages of youths attending university

- percentages of young persons graduating from university

- median years of education of persons in the population.

Each of these indicators views educational equality from a special perspective. Equal expenditures per child, for example, neglects the lack of uniformity in characteristics of child, parents and peers that impact on educational achievements and contribute to inequality in such achievements even when expenditures are uniform. Achievement test scores, however, register only some aspects of educational outcomes. Psychological aspects, such as self-esteem and external-internal control, are neglected. These affective attributes are products of the educational system and also determinants of learning. Perhaps more serious is the fact that uniformity in achievement scores may hide the very different extent to which the innate capacity of young persons is being developed.

Research suggests that learning achievements are a product of the school, the innate ability of the child, his home environment and the characteristics of his peers. Real resource comparability requires knowledge about the extent and value of resources of each of these factors affecting educational outcomes. Comparability also necessitates information about the relative efficiency with which these resources are being combined. Differences in organization of schools, the efficiency of their management and in prices paid for goods and services contribute to unequal value of resources when monetary values are the same. For example, schools in rural areas may have too few students to operate efficiently, specially trained teachers or equipment for a science laboratory may be very costly per student hour of use, prices paid for supplies may not be the same from one region to another, and salaries (even though nominally equal) may not necessarily have uniform buying power. Even equal salary levels adjusted for cost-of-living differences would not reflect variations in teacher response to opportunities to teach in Paris, Rome or Stockholm, as contrasted with opportunities in outlying areas of the nation. Without special pay for service in outlying areas, such as is provided in Norway, quality may vary despite the superficial uniformity of pay.

Indices of Equality in Access to Jobs

Indices of inequalities in the labor market also are partial measures that require interpretation in the light of circumstances in each nation. Among the major indicators that can be used to compare youths and others in the population are:

- unemployment rates by sex, race, income class and region

- rates of extended unemployment by sex, race, income class and region

- distribution of persons by sex, race, income class and region among the occupations from professional and technical to unskilled workers

- earnings patterns over a working life by sex, race, income class, region and educational attainment.

In this section, data are presented on some of these indices of educational and job equality. They suggest that despite efforts to reduce inequalities, the rapid growth that characterized the 1960's did not reduce disparities among social classes and regions. Generally, the poor, relative to others, remained poor. While economic progress for some meant social and economic mobility that weakened the elitism of earlier days, relative gaps were not reduced overall.

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There has been a modest shift toward more social equity in higher education enrollments in some countries.

In 1970, students from the lowest social stratum (as measured by father's occupation) constituted a larger proportion of enrollment in higher education than in 1960 or 1965. Students from the highest social stratum were a smaller proportion in the latter period, but still outnumbered low stratum students by a large margin. For example, lowest strata students were from 5 to 26 percent of all students in the 1960 or 1965 period in the seven countries considered, but they were from 12 to 27 percent of all students in 1970. Highest strata students were from 26 to 47 percent of all students in the latter period.

Table 5.1

Social Origins of Students in Higher Education in Selected OECD Countries: Various Years

Country	Year	Socio-occupational category 1/					Others
		A	B	C	D	E	
Finland	1965	32.1%	29.3%	17.3% 2/	--	19.9%	1.4%
	1970	27.3	20.3	23.0 2/	--	21.3	8.1
France	1960	55.2	34.4	5.8	NA	4.6	NA
	1968	47.0	30.7	6.3	NA	11.9	NA
Germany	1961	34.2	29.0	3.6	14.7	5.4	NA
	1970	26.2	35.7	4.2	14.3	12.6	NA
Netherlands	1961	42.0	47.0 3/	--	NA	8.5	NA
	1970	37.0	49.0 3/	--	NA	14.0	NA
Norway	1964	33.6	11.1	12.0	NA	23.9	NA
	1969	37.6	11.0	7.5	NA	19.5	NA
Sweden	1960	48.0	39.0	NA	NA	13.0	NA
	1968	40.0	37.4	NA	NA	22.6	NA
United Kingdom	1961	61.0	13.0	NA	NA	26.0	NA
	1970	46.0	27.0	NA	NA	27.0	NA

1/ Classification by father's occupation (except for Sweden):
- A - Upper stratum
- B - Middle stratum
- C - Independent agriculture
- D - Other independent
- E - Lower stratum

Classification by father's occupation for Sweden:
- A - Upper middle class (professional and managerial)
- B - Lower middle class
- E - Working class

2/ Category is a combination of C and D.
3/ Category is a combination of B and C.

NOTES.—Most data that are available use father's occupation to measure student's socioeconomic background. Of course, other measures, such as income, wealth and level of education, which are highly interrelated, would yield different distributions. Following are the classifications used in this table as put forth in the 1971 OECD publication Group Disparities in Educational Participation and Achievement.

Classification of students by father's occupation:
- Upper stratum: Professions, higher-level employees, teachers (secondary and higher education).
- Middle stratum: Employees, middle-level employees, primary school teachers, independent agriculturalists.
- Other independent workers: Traders, artisans.
- Lower stratum: Workers, salaried farmers.

The socioeconomic classification for Sweden was obtained from K. Harnquist and J. Bengtsson, "Education Reforms and Educational Equality," Reports from the Institute of Education, No. 20, Goteborg, Sweden, April 1972.

Figures are adjusted to conform with the OECD Standardized Classification of Educational Systems. See section entitled "Intercountry Data" for further discussion of this classification.

FREQUENCY OF REPORTING: One-time study.

DATA ALSO AVAILABLE FOR: Yugoslavia.

SOURCE: Organisation for Economic Cooperation and Development, Towards Mass Higher Education, Paris, 1974.

The relative advantages of upper stratum youths regarding access to university education have diminished but equality is far from being attained.

As shown in the previous table, the higher education opportunities for lower stratum youths increased noticeably throughout the 1960's, but great inequalities still exist. Disparities are seen particularly regarding access to universities.

Table 5.2

Relative Chances of Studying in a University for Upper Stratum and Lower Stratum Youths in Selected OECD Countries: Various Years

Country	Year	Ratio of upper stratum to lower stratum chances
France	1959	84:1
	1964	30:1
	1968	28:1
Germany	1961	58:1
	1970	12:1
Netherlands	1961	56:1
	1970	26:1
Sweden 1/	1960	9:1
	1968	5:1
United Kingdom 2/	1961	8:1
	1970	5:1

1/ The classification used is not comparable to that used in other cases.
2/ England and Wales.

NOTES.—The nature of the concept of socioeconomic background is difficult to measure and international comparison is tentative. Levels are measured by father's occupation.

Upper stratum: Professions, higher-level employees, teacher (secondary and higher)

Lower stratum: Workers, salaried farmers.

See Table 5.1 for more complete discussion of classification by socioeconomic background.

FREQUENCY OF REPORTING: One-time study.

DATA ALSO AVAILABLE FOR: Yugoslavia.

SOURCE: Organization for Economic Cooperation and Development, Towards Mass Higher Education, Paris, 1974.

The United States does not exhibit a trend of greater access to higher education for low income family groups.

Percentage distribution in higher education for the less than $4,000 parental income group remained steady throughout the 1966-74 time period. The $4,000-$9,999 income group (lower stratum) displayed a drastic decrease while the middle and higher income groups showed gains in percentage distribution.

Table 5.3

Estimated Parental Income of First-time Students in Institutions of Higher Education 1/ in the United States: 1966, 1970, 1974

Parental income	Percentage distribution 1966	 1970	 1974
Less than $4,000	6.6%	5.9%	6.0%
$4,000-$9,999	47.1	31.7	18.3
$10,000-$14,999	25.2	31.0	29.0
$15,000-$19,999	9.4	13.2	16.6
$20,000-$24,999	4.6	7.3	12.0
$25,000 or more	7.1	10.9	18.2
Total	100.0	100.0	100.0

1/ Includes all universities, all four-year colleges, all two-year colleges.

NOTES.—Incomes are not adjusted for inflation; therefore, part of the increase of access to higher education is due to inflation and resultant higher incomes for much of the population. The percent of students from families with incomes of less than $4,000 stayed almost constant since 1966 (decreasing slightly from 6.6 to 6.0 percent).
FREQUENCY OF REPORTING: Annual.
OTHER SIMILAR DATA: American Council on Education, The American Freshman: National Norms.

SOURCE: National Center for Education Statistics, The Condition of Education, Washington, D.C., 1976.

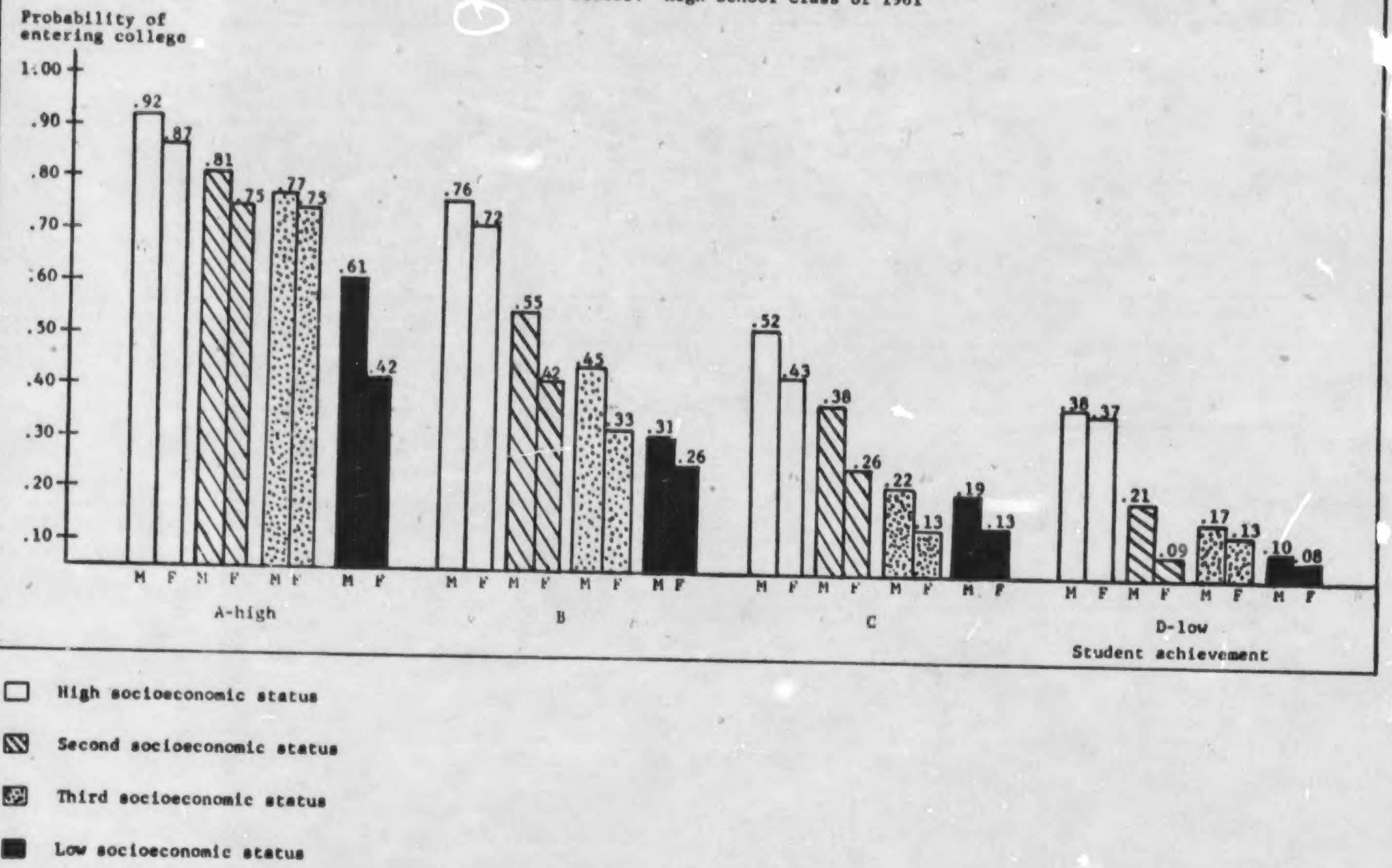
In the United States in 1961, students from lower socioeconomic backgrounds had smaller probabilities of entering college despite equal achievement levels.

When classified within their respective achievement quartiles, students with a high socioeconomic status had a greater probability of entering college than those students with a lower socioeconomic status. In many cases, students with higher socioeconomic status but lower achievement levels had greater probabilities of entering college than some students of higher achievement levels but lower economic status. For example, men who had a Class D achievement level but a high socioeconomic status had a 0.38 probability of entering college. Men who had a Class B achievement level and a low socioeconomic background, however, had a 0.31 probability of entering college.

See Table 5.4

Chart 5.4

Probability of High School Graduates Entering College in the Year Following Graduation by Family Socioeconomic Status, Student Achievement and Sex in the United States: High School Class of 1961



Source of Data: American Institutes for Research

Table 5.4.--Probability of high school graduates entering college in the year following graduation by family socioeconomic status, student achievement and sex in the United States: High school class of 1961

Socioeconomic status	Student achievement level							
	A-high		B		C		D-low	
	Male	Female	Male	Female	Male	Female	Male	Female
High	.92	.87	.76	.72	.52	.43	.38	.37
Second	.81	.75	.55	.44	.38	.26	.21	.09
Third	.77	.75	.45	.32	.22	.13	.17	.13
Low	.61	.42	.31	.26	.19	.13	.10	.08

NOTES.--Socioeconomic status quartiles were calculated by an equally weighted measure determined by a series of questions posed to the students in the high school class of 1961. The questions referred to: the present value of the home, family income in 1959, the number of books, washers, driers, dishwashers, refrigerators, freezers, vacuum cleaners, telephones, televisions, radios and phonographs in the home, and whether the student owned his own room, desk and typewriter. Questions also referred to the educational level of the student's father and mother (none/grade school --doctorate) and to the occupation of the student's father. The occupations were classified as: 1-farm worker, laborer, private household service worker; 2-service worker, semi-skilled worker; 3-wage earner, clerical worker; 4-farm owner, sales worker, proprietor, technical worker; 5-official and professional workers.

FREQUENCY OF REPORTING: One-time study.

OTHER SIMILAR DATA: *Students and Buildings, An Analysis of Selected Federal Programs for Higher Education*, U.S. Department of Health, Education, and Welfare, U.S. Office of Education, Washington, D.C., 1968; *A Statistical Portrait of Higher Education*, Carnegie Foundation for the Advancement of Teaching, New York, 1972.

SOURCE: American Institutes for Research, "One Year Follow-up Studies," *Project Talent*, Pittsburgh, 1966.

Inequalities in higher education due to the social origin of students are reduced by short-cycle higher education.

One purpose for the formation of short-cycle education was to provide equality of opportunity. The following table of selected countries in the 1960's verifies the attainment of that goal. The percentage of lower stratum students enrolled in short-cycle higher education, that is, those students of working class backgrounds, is clearly higher than the percentage of those same students in universities. This phenomenon may, however, cause an inequality in a different form. Students of a lower socioeconomic background may become continually geared toward this form of education, thereby segregating the classes among institutions of higher education.

Table 5.5

Comparison of Social Origin of Students in Short-Cycle Higher Education in Selected Industrialized OECD Countries: Various Years

5.5a Percentages of students in short-cycle higher education and universities by father's occupation

	Professions	Employees	Industrial workers and artisans	Unskilled workers	Transport and communications workers	Others	Total
Canada: Ontario (1967/68)							
CAAT							
Applied arts	25.0%	18.2%	38.7%	4.5%	4.5%	9.1%	100.0%
Commerce	24.0	13.6	32.5	6.5	14.3	9.1	100.0
Technology	14.1	8.6	39.8	5.1	15.2	17.2	100.0
Universities:							
(Arts and Sciences)	40.4	11.1	23.7	3.0	9.4	12.4	100.0

	Professions	Industrialists tradesmen	Middle level employees	Other employees	Farmers	Workers in industry	Others	Total
France (1968)								
IUT's	12.3%	15.7%	17.1%	NA	10.7%	24.2%	20.0%	100.0%
Faculties	32.1	14.3	16.1	8.8%	5.7	11.9	11.1	100.0

5.5b Percentages of lower stratum students enrolled in universities and short-cycle higher education

	Universities	Short-cycle higher education
Canada: Quebec (1968)	24.9%	38.3% 1/
England and Wales (1961)	26.0	37.9 2/
(1970)	27.0	36.0 3/
United States (1966)	11.0	18.0 4/

1/ CEGEP.
2/ Other than universities.
3/ Five polytechnics.
4/ Two-year establishments.

NOTES.—An IUT is a University Institute of Technology which is primarily involved in the training of advanced technicians. The CAAT is a College of Applied Arts and Technology, a type of community college in Ontario offering 2 and 3 year programs in technology or business. A CEGEP is a College of General and Professional Teachings unique to Quebec. After grade 10, a student may choose a 2-year academic program to prepare him for entry into a university or he may opt for a 3-year technical vocational program. Data compiled by the OECD from national sources.
FREQUENCY OF REPORTING: One-time study.
DATA ALSO AVAILABLE FOR: Yugoslavia.

SOURCE: Organization for Economic Cooperation and Development, Towards Mass Higher Education, Paris, 1974; Short-Cycle Higher Education, Paris, 1973.

Disparities in education due to socioeconomic background are apparent at the secondary level.

Children whose fathers are in high level occupations were more heavily represented in higher level secondary education and in the more academic types of secondary education than they were in lower level or more vocational secondary education. For example, 58 percent of all upper secondary general education students were children of fathers who were professionals or managers, compared to a 22 percent representation in lower secondary vocational education in Belgium in 1973. Similar patterns were displayed in France and Germany.

Table 5.6A

Distribution of Pupils by Social Background in Secondary Education in Belgium: 1973

Social background	Lower secondary		Upper secondary	
	General	Vocational	General	Vocational
Upper management public sector	1.80%	0.20%	2.40%	0.80%
Upper management private sector	8.00	1.40	10.60	2.70
Legal profession	0.60	0.10	1.20	0.30
Medical profession	1.40	0.20	2.10	0.20
Teacher	6.10	1.40	5.70	5.90
Middle management	8.20	3.60	8.10	5.40
Lower management	23.20	14.40	27.50	20.30
Farmers and farmworkers	3.00	4.80	3.60	7.80
Skilled workers	24.00	31.70	17.00	21.80
Unskilled workers	13.70	30.10	10.00	19.80
Tradesmen	7.80	8.00	9.10	10.10
Artistic profession	0.40	0.40	0.40	0.50
Without profession	1.30	3.30	1.90	4.10
Undefined	0.50	0.40	0.40	0.30
Total	100.00	100.00	100.00	100.00

Table 5.6B

Socioprofessional Background of Pupils in Public Secondary School in France: 1975

Socioprofessional background	Third year lower secondary	First year upper secondary	First year vocational
Farmers	7.6%	6.5%	6.3%
Farmworkers	1.9	0.9	2.3
Owners industry/commerce	9.6	10.9	6.4
Professions/upper management	8.3	14.6	1.2
Middle management	10.5	14.7	4.1
Office workers	12.0	12.8	10.8
Manual workers	34.9	27.0	44.8
Service workers	3.0	2.3	4.2
Other	3.3	3.8	2.7
Without profession	4.4	3.9	6.8
Orphans	0.6	0.3	1.3
Undefined	3.8	5.5	9.1
Total = 100%	526,243	261,353	347,869

Table 5.6C

Percentage of Pupils and First-Year Students by Fathers' Occupation and Type of School Attended in Germany: 1972

Father's occupation	10 to under 15 year olds	10 to under 15 year olds attending short-course secondary schools	10 to under 15 year olds attending intermediate schools	10 to under 15 year olds attending grammar schools	First year students attending universities (winter term 1971/72)
Unskilled worker	23.7%	29.8%	18.3%	5.4%	3.7%
Not gainfully employed	5.4	6.5	3.8	2.8	2.8
Skilled worker	26.1	29.7	25.2	13.0	6.0
Self-employed farmer	6.1	8.9	5.6	3.6	3.6
Employee	20.2	14.7	23.4	38.4	34.5
Self-employed (excluding farmer)	10.6	7.3	14.1	20.1	23.1
Civil servant/judge	7.9	5.2	9.4	16.6	24.5
Total	100.0	100.0	100.0	100.0	100.0

NOTES.—Data was gathered through national sources with national definitions and modes of collection used. Any comparisons between countries should be approached with caution.

SOURCE: Belgium: Services Statistiques et Programmation, Etudes et Documents, No. 9, 1974.
France: Ministry of Education, Statistiques des Enseignements, No. 9, Paris, 1976.
Germany: Organisation for Economic Cooperation and Development, unpublished data, 1976.

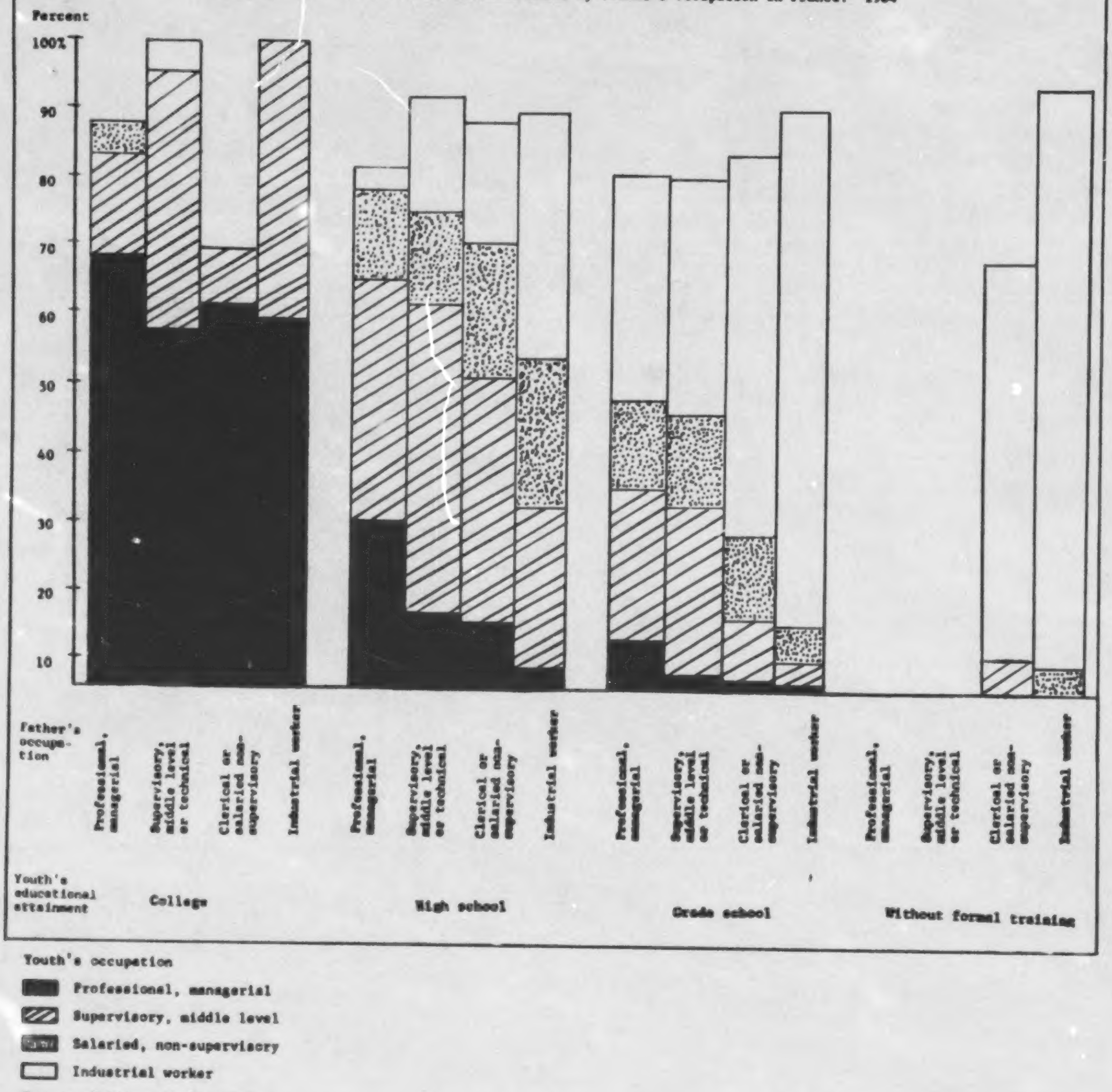
Disparities in occupational status decreased as educational levels increased for males in France in 1964.

Socioeconomic background appears to play a significant role in the employment of youths. 1964 data from France reveal that this is most prevalent among males who had a lesser degree of schooling than their more highly educated counterparts. For example, regardless of father's occupation, about the same proportion of young males with college education were employed as professionals. On the other hand, those with no formal training or some grade school as the highest educational attainment showed a much wider variance in occupations. Those whose fathers were professionals were much less likely to have jobs in industry than those whose fathers were industrial workers.

See Table 5.7

Chart 5.7

Occupational and Educational Level of Males by Father's Occupation in France: 1964



Source of Data: R. Boudon

Table 5.7.--Occupational and educational level of males by father's occupation in France: 1964

Father's socio-occupational status	Son's educational level	Son's socio-occupational status: Professional, managerial	Supervisory, middle level	Tradesmen, craftsmen	Salaried, non-supervisory	Army	Industrial worker	Farmer worker (wages)	Farmer independent	Service worker	Total 1/	
Professional, managerial	Without formal training	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%		(0)%
	Grade school	12.62	21.96	4.21	13.08	4.21	32.24	2.33	9.34	0.00	100%	(214)
	High school	30.72	33.54	11.60	14.11	5.02	3.45	0.00	1.57	0.00	100	(319)
	College	68.41	15.07	4.35	4.35	7.83	0.00	0.00	0.00	0.00	100	(345)
Supervisory, middle level or technician	Without formal training	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100	(20)
	Grade school	3.67	29.29	5.72	11.21	11.67	33.87	0.00	4.58	0.00	100	(437)
	High school	17.44	43.49	4.65	14.88	4.19	15.35	0.00	0.00	0.00	100	(430)
	College	57.25	38.41	0.00	0.00	0.72	3.62	0.00	0.00	0.00	100	(138)
Clerical or salaried non-supervisory	Without formal training	0.00	10.53	10.53	0.00	21.05	57.89	0.00	0.00	0.00	100	(19)
	Grade school	2.57	11.71	8.39	14.62	4.82	54.40	0.00	1.83	1.66	100	(1204)
	High school	15.21	35.66	5.74	19.45	6.48	17.46	0.00	0.00	0.00	100	(401)
	College	61.54	7.69	0.00	0.00	30.77	0.00	0.00	0.00	0.00	100	(65)
Industrial worker	Without formal training	0.00	0.00	7.41	6.17	0.00	86.42	0.00	0.00	0.00	100	(81)
	Grade school	0.86	5.64	5.16	6.63	2.82	76.76	0.63	1.01	0.47	100	(7901)
	High school	7.31	25.35	5.20	20.71	4.71	34.93	0.81	0.00	0.97	100	(1231)
	College	59.18	40.82	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100	(49)
Farm worker (wages)	Without formal training	0.00	0.00	0.00	0.00	0.00	68.42	31.58	0.00	0.00	100	(95)
	Grade school	0.15	1.64	4.68	3.51	3.28	60.61	21.84	3.51	0.78	100	(1282)
	High school	11.76	23.53	0.00	43.14	0.00	21.57	0.00	0.00	0.00	100	(51)
	College	100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100	(2)

1/ Percents may not add up to 100 due to rounding.

NOTES.—The table is constructed from mobility data from a study conducted in France in 1964; the results of which were published in "Praderie" (1966, 1967). The table deals with a sample survey of French males who were active both in 1964 (when the observation was conducted) and earlier in 1959. The occupational categories are those of the French Bureau of Census (INSEE). Only the data corresponding to selected occupational categories have been presented for fathers.

FREQUENCY OF REPORTING: One-time study.

SOURCE: R. Boudon, Education, Opportunity, and Social Inequality, New York, 1974.

The chances of access to courses leading to post-secondary education vary widely from region to region.

As can be seen by the diverging trend in the dispersion indexes of school rates by region, no reduction in disparities in secondary and higher education has been noted in the past 15 years. Indeed, the general trend has been towards a stabilization of disparities in secondary education and an increase in higher education. The regional variations of access to post-secondary education reflect not only different social structures but also disparities in available facilities and in regional market situations, as well as different socio-cultural lifestyles.

Table 5.8

Trend in Dispersion Indexes of School Rates by Region in Selected OECD Countries: Various Years

Country	Year	(Unweighted standard deviation (V̄) and coefficient of variation (c)			
		V̄	c	V̄	c
Australia 1/	1965-66	2.4	16.2		
	1970-71	5.7	28.0		
	1973-74	6.4	27.0		
		Secondary education 2/		Full-time higher education 3/	
Canada	1960-61	8.14	11.90	2.00	25.9
	1965-66	8.50	11.05	2.48	22.1
	1970-71	10.48	11.73	2.37	13.7
	1972-73	10.39	11.87	1.75	13.6
France	1971-72				
Upper secondary education		9.26	12.9		
leading to:					
higher education		8.86	16.5		
university education		5.47	38.5		
		Secondary education 4/			
		Male		Female	
Germany	1964	1.48	15.7	0.91	15.4
	1974	4.39	18.6	3.46	22.8
		Upper secondary education 5/		General secondary or upper secondary 5/	
Italy	1964-65	5.02	23.7	1.91	33.6
	1971-72	6.08	13.4	3.00	24.2
Yugoslavia	1960-61	0.81	11.5	2.48	107.0
	1973-74	9.39	10.5	4.21	33.1

1/ 16-19 age group; 8 states or territories.
2/ 14-17 age group; 10 provinces.
3/ 18-24 age group.
4/ Graduates from gymnasia (11 states).
5/ 19 regions.
6/ 16-19 age group; 8 republics.

NOTES.—These school rates by region have been calculated by the OECD on the basis of national statistics. The unweighted standard deviation does not take into account the varying sizes of the school population in each region; the coefficient of variation is the ratio between the standard deviation and the arithmetic mean of the school rates. The growth of these indexes over time indicates an increase in disparities; their decrease shows a weakening of them.

OTHER SIMILAR DATA: Group Disparities in Educational Participation and Achievement, Vol. IV, OECD, Paris, 1971.

SOURCE: Organization for Economic Cooperation and Development, unpublished data, 1977.

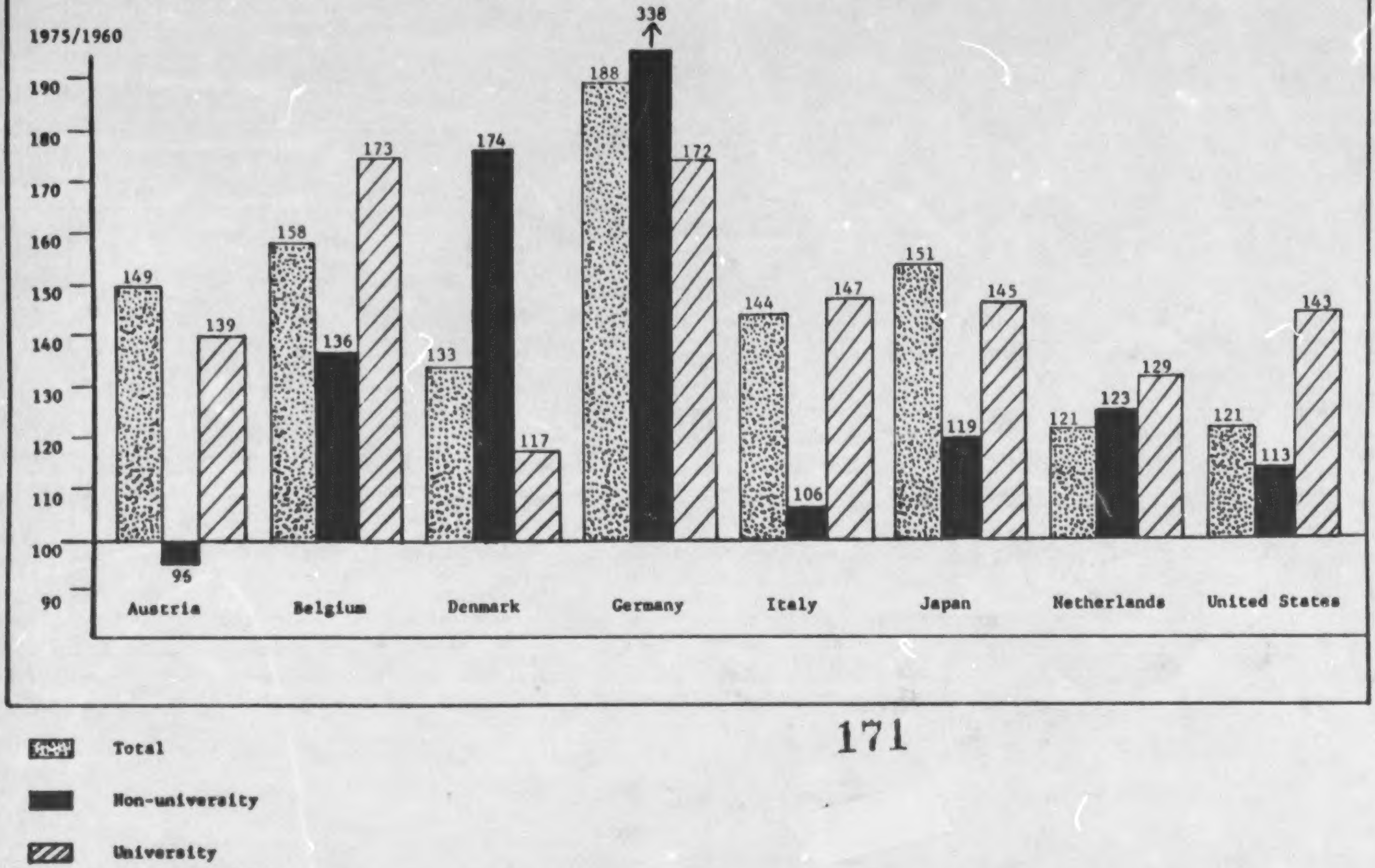
Between 1960 and 1975, the participation of women in higher education registered significant increases

Growth in female enrollment from 1960 to 1975 was noted in all countries for both the university and non-university sectors of higher education with one exception. In the non-university sector, Austria measured a decrease in the female ratio from 1960 to 1975. The tremendous increase in Germany in the non-university sector may be attributable to the Labor Promotion Act of 1969 which had special provisions for women in that area of education.

See Table 5.9

Chart 5.9

Trends in the Ratio of Female Enrollment in Higher Education in Selected OECD Countries: 1975/1960



Source of Data: OECD

Table 5.9.--Ratio of female to total enrollment in higher education in selected OECD countries: 1960, 1965, 1970, 1975

Country	Total				University				Non-university			
	1960	1965	1970	1975	1960	1965	1970	1975	1960	1965	1970	1975
Australia	NA	NA	39.6	44.6	NA	NA	29.7	37.3	NA	NA	64.0	54.0
Austria	23.9	24.3	28.9	35.6 3/	23.1	23.9	25.0	32.1 3/	62.5 7/	35.7 7/	57.1 7/	60.0 3/ 7/
Belgium	26.3	32.7	38.2	41.5 1/	19.2	24.0	28.6	33.3 1/	37.1	44.9	49.5	50.5 1/
Canada	NA	NA	39.2	41.3 4/	NA	NA	35.9	38.4 4/	NA	NA	49.2	49.9 4/
Denmark	30.8	34.3	37.8	41.1 4/	24.3	30.2	31.7	28.5 4/	37.3	41.0	49.6	65.0 4/
Finland	46.6	50.9	48.5	50.3	46.9	49.3	47.6	48.8	NA	NA	NA	55.5
France	37.1	40.3	NA	NA	39.7	41.4	NA	NA	24.5	35.1	37.2 5/	42.4 3/
Germany	17.9	18.8	26.1	33.7	20.8 6/	22.5 6/	30.6 6/	35.8 6/	7.3	6.5	12.8	24.7
Ireland	NA	29.5	34.1	38.6 1/	NA	28.1	33.5	41.8 1/	NA	34.0	36.2	32.8 1/
Italy	26.8	32.9	37.2	38.6 4/	26.2	32.5	37.0	38.4 4/	45.2	46.3	46.7	47.7 4/
Japan	20.0	NA	NA	30.1 4/	13.6	NA	NA	19.7 4/	67.5	72.6*	78.5	80.0 4/
Netherlands	25.2	25.2	26.3	30.5 1/	17.9	18.0	19.6	23.1 1/	32.0	33.5	35.5	39.2 1/
Norway	NA	38.8	37.7	40.9 3/	NA	23.8	26.8	32.8 3/	NA	54.9	50.6	50.0 3/
Sweden 1/	NA	NA	44.6	45.3 4/	NA	NA	38.1	37.6 4/	NA	NA	72.7	82.5 4/
United Kingdom	NA	37.8*	40.0	41.8 4/	NA	NA	28.3	31.3 4/	NA	NA	58.2	58.2 4/
United States 2/	37.1 8/	39.0 8/	41.5	44.8	30.9 8/	34.4 8/	41.5	44.1	41.8 8/	42.3 8/	41.5	47.3

* Estimates.
1/ Provisional figures.
2/ Degree credit students only.
3/ 1974.
4/ 1973.
5/ 1971.
6/ Data exclude "höhere fachschulen" higher non-university advanced technical schools and include a small portion of part-time pupils.
7/ Data exclude girls enrolled in medical technician assistantship programs.
8/ National Center for Education Statistics data.

NOTES.—The figures in this table are classified according to the OECD standardized classification of educational systems with the exception of the United States. See section entitled "Intercountry Data" for a discussion of this classification.
FREQUENCY OF REPORTING: Data updated irregularly.
DATA ALSO AVAILABLE FOR: Greece, Iceland, Luxembourg, New Zealand, Portugal, Spain, Turkey, Yugoslavia.
OTHER SIMILAR DATA: Educational Statistics Yearbook, Vol. I, OECD, Paris, 1974.

SOURCE: Organization for Economic Cooperation and Development, unpublished data, 1977; U.S. Department of Health, Education, and Welfare, National Center for Education Statistics, Digest of Educational Statistics, Washington, D.C., 1970.

Data from 1965 and 1975 show a predominance of women in the humanities, social sciences and education.

For 1965/66, the percentage of all women enrolled in science and technology and arts and education differed significantly from the percentage of men enrolled in these fields; men dominating in the former, women in the latter. There was a nearly equal distribution in the medical science category. The same trend was noted in the data for 1975.

Table 5.10A

Distribution of Women and Men in Selected Fields of University Study in Selected OECD Countries: 1965/66

Country	Female (Percent in each field)			Male (Percent in each field)			Difference (Male percent minus female percent)		
	Science and Technology	Medical Science	Arts and Education	Science and Technology	Medical Science	Arts and Education	Science and Technology	Medical Science	Arts and Education
Austria........	6.4%	20.9%	72.7%	34.1%	14.9%	51.0%	27.7%	-6.0%	-21.7%
Belgium........	15.2	21.4	41.7	29.3	22.9	15.7	14.1	1.5	-26.0
Canada.........	8.3	8.7	73.4	32.4	5.1	50.3	24.1	-3.6	-23.1
Denmark........	11.2	23.4	45.5	30.4	20.0	17.2	19.2	-3.4	-28.3
Finland........	15.6 1/	4.8 1/	56.5	41.5	7.4 1/	18.0	25.9	2.6	-38.5
France.........	23.4	13.0	53.7	39.8	19.1	22.2	16.4	6.1	-31.5
Germany........	11.7	24.9	47.6	37.1	15.3	19.5	25.4	-9.6	-28.1
Ireland........	12.6	14.0	58.4	36.5	17.7	32.6	23.9	3.7	-25.8
Italy..........	13.0	4.8	65.6	33.5	11.9	11.6	20.5	7.1	-54.0
Japan..........	3.6	8.5	66.5	31.2	3.1	16.7	27.6	-5.4	-49.8
Netherlands....	14.0	16.7	42.9	40.7	15.4	13.8	26.7	-1.3	-29.1
Norway.........	16.1	7.6	70.4	45.1	8.0	29.9	29.0	0.4	-40.5
Sweden.........	12.0	6.8	45.8	36.3	11.1	16.0	24.3	4.3	-29.8
Switzerland....	17.3	17.5	65.2	39.4	15.9	44.7	22.1	-1.6	-20.5
United Kingdom.	23.9	9.5	45.4	53.3	10.2	16.0	29.4	0.7	-29.4
United States 1/	7.6	5.5	65.3	28.9	4.7	25.1	21.3	-0.8	-40.2

1/ First degree.

Table 5.10B

Percentage Distribution of Total and Female New Entrants to University by Field of Study in Selected OECD Countries: 1975

Country			Humanities	Fine Arts	Social Sciences	Law	Education	Medical Sciences	Pure Sciences	Technology	Architecture	Agriculture	Other
Australia	Total	100.0%	33.0%	0.5%	20.0%	5.7%	6.2%	5.9%	17.0%	7.6%	1.7%	2.5%	0.0%
	Female	100.0%	47.6	0.6	16.9	4.2	8.4	6.0	13.9	0.6	0.6	1.2	0.0
Denmark 1/	Total	100.0%	35.1	0.0	15.5	7.2	0.0	12.5	15.1	7.3	4.3	2.9	0.1
	Female	100.0%	49.7	0.0	12.1	6.7	0.0	15.1	9.3	1.4	2.9	2.6	0.2
Finland	Total	100.0%	16.6	0.0	40.0	4.6	0.0	5.8	16.9	12.4	1.0	2.7	0.0
2/	Female	100.0%	36.7	0.0	30.0	2.5	0.0	7.0	17.2	2.8	1.2	2.5	0.0
Italy	Total	100.0%	17.3	0.0	17.2	14.5	4.4	16.8	10.6	10.3	5.3	3.5	0.0
	Female	100.0%	33.1	0.0	10.9	12.7	10.1	13.6	14.3	0.9	3.4	0.9	0.0
Japan	Total	100.0%	14.0	2.3	33.9	9.9	8.6	4.5	3.7	19.4	0.0	3.6	0.1
3/	Female	100.0%	37.9	6.1	20.0	3.5	19.9	7.9	2.1	0.9	0.0	1.6	0.1
Netherlands 3/	Total	100.0%	31.0	0.0	16.1	12.3	0.0	11.5	11.1	11.1	0.0	4.8	2.1
	Female	100.0%	53.0	0.0	10.6	11.8	0.0	11.1	6.8	1.0	0.0	4.7	1.0
Norway 3/	Total	100.0%	25.1	0.0	10.0	8.5	9.2	7.2	11.3	12.2	1.0	3.6	11.9
	Female	100.0%	36.8	0.0	6.9	6.2	10.6	5.7	7.2	2.4	0.6	2.0	21.6
United Kingdom 3/	Total	100.0%	12.5	11.2	23.9 4/	-- 4/	1.6	9.4	26.3	13.9	1.5	1.6	0.0
	Female	100.0%	21.7	16.4	24.6 5/	-- 5/	3.2	10.0	20.2	1.5	1.2	1.2	0.0

1/ 1973.
2/ 1972.
3/ 1974.
5/ Social sciences category and law category combined.

NOTES.—For Table 5.10A, "Medical Science" includes: medical practitioners, midwives, dental surgeons, nurses, physical therapists, psychologists, opticians, dieticians and laboratory workers. "Science and Technology" includes: pure science (biology, chemistry, physics, etc.), math and engineering. "Arts and Education" includes: humanities, social sciences and teaching.
FREQUENCY OF REPORTING: Updated irregularly.
DATA ALSO AVAILABLE FOR: Greece, Portugal, Spain, Turkey.
OTHER SIMILAR DATA: Development of Higher Education 1950-1967, Analytical Report, OECD, Paris, 1970.

SOURCE: Table 5.10A: Organization for Economic Cooperation and Development, Towards Mass Higher Education, Paris, 1974.
Table 5.10B: Organization for Economic Cooperation and Development, unpublished data, Paris, 1977.

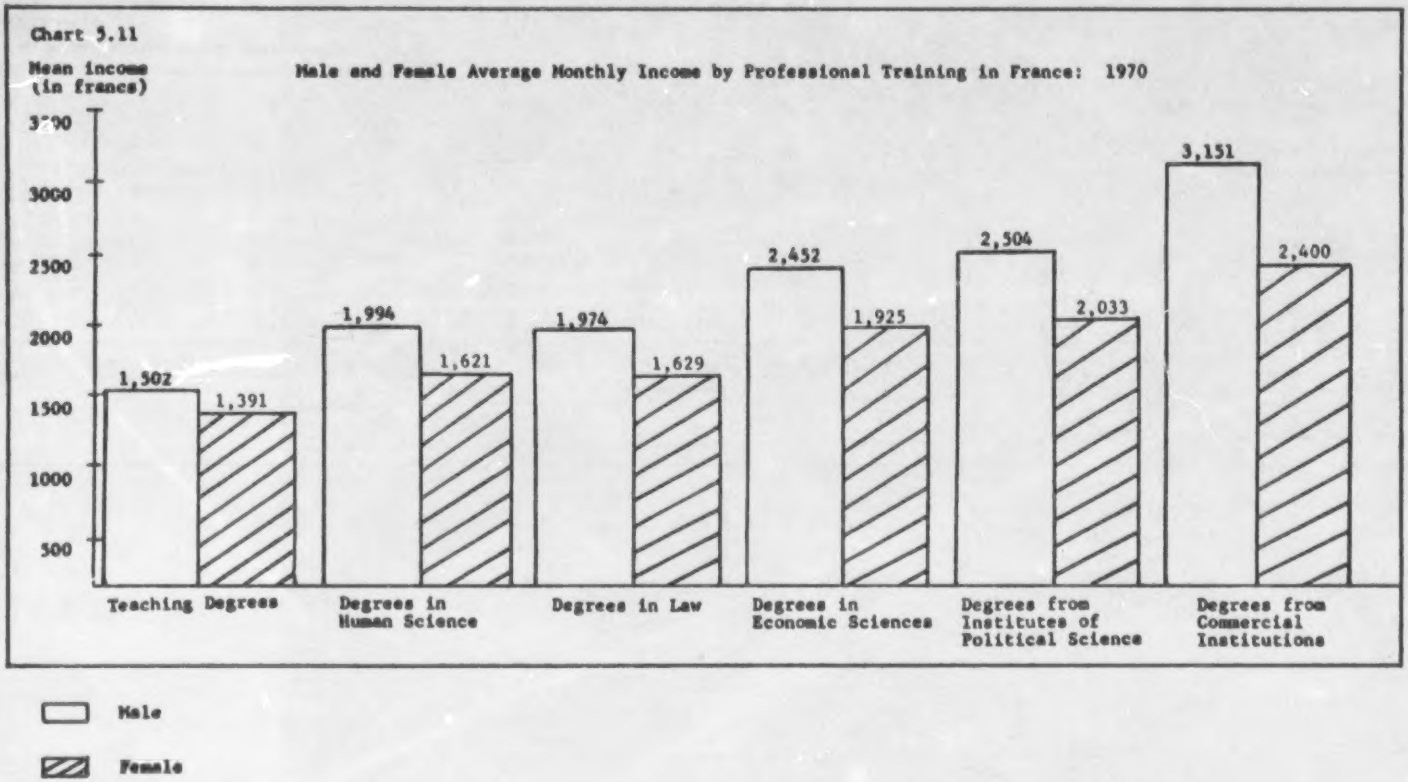
__Disparities existed between male and female average monthly incomes despite equal professional training in France in 1970__.

Although, as shown in the previous charts, female enrollments in higher education have increased, incomes for graduates from the same professional training in 1966 reflect an inequality in the world of work. As exhibited in the following national data for France, these inequalities are substantial. This difference, however, could be due, in part, to the fact that a greater proportion of women work part-time.

See Table 5.11

Chart 5.11

Male and Female Average Monthly Income by Professional Training in France: 1970



Source of Data: OECD

Table 3.11.--Comparison of male/female monthly income by professional training in France: 1970

Graduated in 1966 Professional income (1970)	Men (in percents)						Women (in percents)					
	Teaching degrees	Degrees in the human sciences	Degrees in law	Degrees in economic sciences	Degrees from institutes of political studies	Degrees from commercial institutions	Teaching degrees	Degrees in the human sciences	Degrees in law	Degrees in economic sciences 1/	Degrees from institutes of political studies 1/	Degrees from commercial institutions 1/
Less than 1,200 francs	14.4%	9.0%	3.4%	0.3%	0.8%	NA	18.1%	10.7%	4.6%	1.6%	4.0%	NA
From 1,200 to 1,400 francs	24.2	9.8	7.4	3.5	0.8	NA	33.5	17.4	11.7	6.5	2.7	1.9%
From 1,400 to 1,600 francs	21.3	12.3	13.1	9.3	12.7	0.7%	22.5	20.1	25.0	21.0	14.7	NA
From 1,600 to 1,800 francs	13.3	9.0	16.3	5.7	5.7	2.1	10.8	18.1	20.4	14.5	17.3	1.9
From 1,800 to 2,000 francs	9.3	10.7	11.8	8.2	9.8	2.9	6.7	12.8	15.8	14.5	9.3	11.3
From 2,000 to 2,200 francs	5.4	12.3	10.6	8.0	9.0	6.8	3.3	8.0	8.2	12.9	16.0	13.1
From 2,200 to 2,400 francs	3.2	9.0	9.2	8.0	6.1	4.6	1.5	4.0	4.6	6.5	6.7	20.8
From 2,400 to 2,600 francs	3.3	4.1	6.2	13.9	9.8	8.6	0.8	3.4	2.0	11.3	6.7	22.6
From 2,600 to 2,800 francs	1.7	4.9	6.9	8.0	5.7	7.1	0.6	0.7	1.3	1.7	9.3	9.4
From 2,800 to 3,000 francs	0.8	4.9	5.5	8.3	10.7	10.0	0.4	NA	2.0	4.8	5.3	7.5
From 3,000 to 3,500 francs	1.6	7.4	3.3	11.6	11.7	24.3	0.9	1.3	2.0	3.2	5.3	7.5
Over 3,500 francs	1.1	6.6	6.1	15.2	17.2	32.9	0.7	3.4	2.0	1.7	2.7	1.9
Mean income (in francs)	1,502	1,994	1,974	2,452	2,304	3,181	1,391	1,621	1,629	1,925	2,033	2,400
Proportion of income below 1,800 francs (percents)	73.2	40.1	40.2	18.8	20.0	2.8	85.0	66.3	61.7	43.6	38.7	3.8

1/ Percentages not significant owing to the smallness of the category.

NOTES.—FREQUENCY OF REPORTING: One-time study.
OTHER SIMILAR DATA: F. Vrain, Les debouches professionels des etudiants, Cahiers du Centre d'etudes de l'emploi, No. 3, Puf., Paris, 1973.

SOURCE: Organization for Economic Cooperation and Development, Towards Mass Higher Education, Paris, 1974.

Women with equal education qualifications earn less than men in Great Britain.

Although women have taken advantage of greater access to higher education, this equality is not transferred to the real working world. 1973 figures for Great Britain show that within their respective education qualification levels, a greater percentage of men earned more than women. The disparities exist at all education levels.

Table 5.12

Highest Qualification Level Attained by Annual Earnings and by Sex in Great Britain: 1973

Gross annual earnings (In pounds)	Degree or equivalent 1/	Below degree higher education 2/	GCE 'A' level or equivalent 3/	GCE 'O' level or equivalent CSE grade 4/	CSE other grades/ commercial/ apprenticeship 5/	No qualifi-cations	Total 6/
Males							
≥ 250	99	100	99	97	99	99	99
≥ 500	98	99	96	95	97	97	97
≥ 750	98	99	94	90	95	92	93
≥ 1,000	96	97	89	83	92	87	88
≥ 1,250	95	93	80	73	82	73	77
≥ 1,500	92	88	71	65	69	55	65
≥ 2,000	80	67	44	42	34	25	36
≥ 2,500	70	46	24	22	15	10	19
≥ 3,000	54	27	12	11	6	5	11
Females							
≥ 250	97 7/		95 7/		96	95	95
≥ 500	93		88		88	81	86
≥ 750	92		72		72	61	67
≥ 1,000	80		50		49	31	42
≥ 1,250	67		28		26	11	22
≥ 1,500	53		17		13	4	13
≥ 2,000	31		5		5	1	6
≥ 2,500	12		2		2	-- 8/	2
≥ 3,000	6		1		1	-- 8/	1

1/ Higher degrees (not held in conjunction with teaching qualifications); first degrees/university diplomas or certificates of degree standard (not with teaching qualifications); qualifications from colleges of technology, etc. or from professional institutions of degree standard (not with teaching qualifications). Also, graduate teachers (including those with university diplomas and certificates of degree standard).

2/ Non-graduate teachers (including those with non-university Census 'B' level qualifications). Also, HNC/HND; City and Guilds Full Technological Certificates; university diplomas or certificates, qualifications from colleges of technology, etc. or from professional institutions, below degree but above GCE 'A' level standard; nursing qualifications of Census 'C' level standard.

3/ City and Guilds Advanced/Final level; ONC/OND. Also, one or more subjects at GCE 'A' level/Higher School Certificate/ Scottish Leaving Certificates Higher/Scottish Certificate of Education Higher/Scottish Universities Preliminary Examination Higher; and/or Certificate of Sixth Year Studies.

4/ One or more subjects at GCE 'O' level/SCE Ordinary/SLC Lower/SUPE Lower or Ordinary/School Certificate; CSE Grade 1; City and Guilds Craft/Ordinary level.

5/ Clerical or commercial qualifications; CSE other grades/ungraded/grade not known. Also, apprenticeship.

6/ Data include foreign and "other" qualifications.

7/ Cells were combined because base numbers were less than 100.

8/ Figures are less than 0.5 percent.

NOTES.—A GCE is a General Certificate of Education obtained after passing a state administered examination. The examination is required for entrance into higher education. GCE 'A' level, the higher level, is equivalent to two years of college, while the GCE 'O', the lower level, is approximately equivalent to a high school diploma. A CSE is a Certificate of Secondary Education obtained after passing an examination based on certain secondary skills. A CSE Grade 1 is equivalent to a GCE 'O'. Lower grades are obtained after studying more basic courses. Data represent those who are employed full-time, working 31 hours or more per week (26 hours or more for teachers and lecturers), aged 16-64.

FREQUENCY OF REPORTING: Data updated irregularly.

OTHER SIMILAR DATA: "Papers presented at an International Conference, Paris 3rd-6th July, 1973," Wage Determination, OECD, 1974.

SOURCE: Office of Population Census and Surveys, Social Survey Division, The General Household Survey 1973, HMSO, London.

In some occupational groups, but not all, women have less education than men.

Women job holders have less education than men among managers and administrators, clerical workers and service workers. Fewer women are college graduates and more have only high school education as their maximum level in these occupations. In other occupational groups, women and men have a similar distribution of educational attainment. These patterns have not changed noticeably in recent years.

Table 5.13

Selected Occupations of Employed Persons in the United States 16 Years Old and Over, by Sex and School Years Completed: 1970, 1976

	1970								1976							
			Percent distribution by years of school completed								Percent distribution by years of school completed					
	Number employed (thousands)		High school		Part college (1-3 years)		College graduates		Number employed (thousands)		High school		Part college (1-3 years)		College graduates	
Occupation	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
Professional, technical and kindred workers	6,782	4,421	16.9%	19.7%	18.4%	19.0%	61.1%	57.8%	7,840	5,615	13.9%	16.6%	17.3%	18.8%	66.6%	61.9%
Managers, proprietors and officials except farm	6,969	1,290	36.9	47.8	20.3	19.8	21.9	10.0	7,229	1,971	32.7	45.9	23.0	20.0	31.2	20.4
Clerical and kindred workers	3,329	9,887	46.7	66.0	23.0	17.3	8.4	3.4	3,226	12,138	44.6	60.9	24.0	21.7	14.3	6.7
Sales workers	2,607	1,848	37.2	51.5	26.3	14.8	18.0	3.3	3,108	2,276	32.2	48.9	26.1	18.9	27.7	6.3
Craftsmen, foremen and kindred workers	9,396	325	43.1	45.9	8.7	7.4	1.8	2.8	10,451 2/	489 2/	49.7	49.4	14.1	12.2	3.7	4.2
Operatives and kindred workers	9,368	4,304	38.0	36.5	6.5	2.5	1.0	0.4	5,780 3/	3,932 3/	44.7	40.0	9.9	4.2	2.0	1.5
Service workers, except private household	2,887 1/	4,681	35.4	41.3	12.5	9.2	2.1	0.9	4,372	6,176	34.6	43.0	18.2	12.2	5.4	2.8
Laborers, except farm and mine	2,981	113	30.1	34.2	7.1	5.8	0.7	0.0	3,602 4/	377 4/	37.5	37.3	10.7	8.9	2.2	2.2
All occupational groups	47,063	28,591	35.2	45.6	13.[illegible]	13.3	14.6	11.1	50,924	34,609	36.4	44.6	16.3	16.3	19.2	14.7

1/ Includes a small number of male private household workers.
2/ Excludes foremen.
3/ Excludes transport workers.
4/ Includes mine laborers.

NOTES.—"All occupational groups" consists of those groups specified above plus, for 1970, farmers, farm managers, laborers and foremen, private household workers and for 1976, transport equipment operatives, private household workers, farm workers.
FREQUENCY OF REPORTING: Annual.

SOURCE: U.S. Department of Labor, Bureau of Labor Statistics, Special Labor Force Reports 125, 193, "Educational Attainment of Workers," Washington, D.C., 1970, 1976.

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Differences between salary offers to men and women bachelor's degree candidates varied by job field.

In 1973, male bachelor degree candidates had higher average monthly salary offers than their female counterparts in six of the seven fields of study for which data are available. In 1976-77, men retained a starting salary advantage in business jobs (except accounting) and in sciences. But women had higher offers in most engineering fields. There has been some fluctuation in these figures from year to year.

Table 5.14

Average Monthly Salary Offers to Male and Female Candidates for the Bachelor's Degree by Field of Study in the United States: 1973/74, 1975/76, 1976/77

Field of study	1973/74 Male	1973/74 Female	1975/76 Male	1975/76 Female	1976/77 Male	1976/77 Female	1973/74 Difference for female	1975/76 Difference for female	1976/77 Difference for female
Business									
Accounting	$ 925	$ 923	$1,017	$1,021	$1,062	$1,061	$- 2	$+ 4	$- 1
Business-general 1/	809	756	876	860	933	908	-53	-16	-25
Marketing and distribution	NA	NA	853	814	915	858	NA	-39	-57
Humanities and social sciences									
Humanities	NA	NA	816	743	866	754	NA	-73	-112
Social sciences	766	696	866	770	904	819	-70	-96	-85
Engineering									
Aeronautical	NA	NA	1,152	1,178	1,227	1,222	NA	+26	- 5
Chemical	1,042	1,033	1,278	1,283	1,386	1,401	- 9	+ 5	+15
Civil	NA	NA	1,104	1,153	1,178	1,246	NA	+49	+68
Electrical	NA	NA	1,154	1,175	1,244	1,262	NA	+21	+18
Industrial	NA	NA	1,137	1,164	1,255	1,280	NA	+27	+25
Mechanical	NA	NA	1,195	1,226	1,284	1,319	NA	+31	+35
Metallurgical 2/	NA	NA	1,212	1,210	1,313	1,324	NA	- 2	+11
Petroleum	NA	NA	1,399	1,388	1,511	1,517	NA	-11	+ 6
Technology	NA	NA	1,083	1,093	1,175	1,209	NA	+10	+34
Sciences									
Agricultural	NA	NA	856	826	929	897	NA	-30	-32
Biological	NA	NA	820	795	892	863	NA	-25	-29
Chemistry	891	867	1,011	1,052	1,103	1,101	-24	+41	- 2
Computer science	920	895	1,035	1,045	1,127	1,114	-25	+10	-13
Health (medical) professions	727	734	883	825	961	881	+ 7	-58	-80
Mathematics	NA	NA	992	982	1,081	1,066	NA	-10	-15
Other physical and earth sciences	NA	NA	1,053	1,043	1,069	1,067	NA	-10	- 2

1/ Including management.
2/ Including metallurgy and ceramics.

NOTES.—Data are based on information supplied by 140 or more participating colleges and universities throughout the country. The information covers job offers in a broad range of curricula and functional areas (except teaching) within employing organizations in business, industry, government and nonprofit and educational organizations and maintains confidentiality for the individual, the college and the employer.
FREQUENCY OF REPORTING: Annual.
OTHER SIMILAR DATA: The Condition of Education 1977, National Center for Education Statistics, U.S. Department of Health, Education, and Welfare, Washington, D.C., 1977.

SOURCE: College Placement Council, Inc., reports on A Study of Beginning Offers (copyright by the College Placement Council, Inc., Bethlehem, Pennsylvania, all rights reserved), 1977.

Unemployment rates for minorities were disproportionately greater than those for whites in the United States in 1974 and 1975.

Although the unemployment rates for all races consistently decreased with higher educational background, the "black and other" unemployment rates remained significantly higher than those of whites for all levels of education. The single exception was among college graduates in 1975 where whites had an 8.4 percent unemployment rate and minorities a rate of 6.2 percent.

Labor force participation rates for minorities decreased from 1974 to 1975 and were lower than those for whites. It may be conjectured that unemployment rates would be even higher were it not for these declines in labor force participation rates.

Table 5.15

Labor Force Characteristics by Educational Background and Race in the United States: 1974, 1975

	Labor force participation rate		Unemployment rate	
	1974	1975	1974	1975
Total 16-24 year olds	64.2%	62.9%	11.5%	15.0%
Enrolled in school				
White	47.7	46.6	11.5	14.0
Black and other	31.3	28.7	28.0	24.6
Enrolled in elementary or high school				
White	45.4	44.7	14.6	18.2
Black and other	25.8	21.0	34.8	32.5
Not enrolled in school				
Some high school 1/				
White	65.3	63.7	16.2	22.8
Black and other	59.3	54.3	31.6	35.4
High school graduate 2/				
White	81.0	81.3	8.7	12.3
Black and other	79.8	77.5	17.7	24.1
College 1-3 years 3/				
White	86.5	87.4	6.4	9.3
Black and other	81.3	79.0	13.9	20.3
College graduate				
White	92.8	94.7	4.3	8.4
Black and other	86.4	81.8	13.2	6.2

1/ High school leavers.
2/ No college.
3/ College leavers.

NOTES.—Labor force participation rates and unemployment rates are percentages of each race in each educational group.
FREQUENCY OF REPORTING: Annual.
OTHER SIMILAR DATA: "Youth and Minority Unemployment," Walter E. Williams, A Study prepared for the use of the Joint Economic Committee, Congress of the United States, July 6, 1977.

SOURCE: U.S. Department of Labor, Bureau of Labor Statistics, "Summary Special Labor Force Report," Monthly Labor Review, Washington, D.C., March 1976.

SECTION SIX: DISINCENTIVES TO EMPLOYERS IN BRIDGING THE TRANSITION FROM SCHOOL TO WORK

Youth unemployment sharpens the issues of incentives for hiring and preparation for work. What are the relative costs to employers of hiring young persons? Is governmental policy--economic, labor market and educational--neutral in employment opportunities among age groups in the population? Does this policy discourage hiring of youths and create special barriers to jobs for young persons? Or does it favor the hiring of youths?

Of overriding influence in determining jobs for youths is the general state of the labor market. While few doubt that structural problems exist in dealing with youth unemployment, including barriers that impede those from lower social strata and disadvantaged groups from getting meaningful employment, a main factor is the prosperity of the overall economic system. A first corrective measure is a growing economy.

A large number of new entrants into the workforce are young people starting their working life. Factors that affect employers' demand for youths need to be identified to determine whether there are incentives or disincentives for hiring of youths relative to older workers. Orthodox economic theory provides a conceptual framework within which to examine the incentives at work. Employers will hire and compensate various kinds of labor only to the extent that they receive a return in the form of a productive contribution which is at least equal to their cost of employing a person.

Costs of labor in general and of particular types of labor are composed, however, of many different cost items. Some, such as compensation, are direct costs and easily measured. Others are less obvious but nevertheless real and require examination. Large firms with many workers may be more likely to know the full range of labor costs relative to output via detailed management analysis. Small employers' hiring practices are more likely to be imprecise because of the high cost of information. Nevertheless, even small firms become aware of the less obvious but nevertheless real costs when differential costs are associated with hiring of specific classes of workers, and these added costs come to be counted in judgments about hiring, retention and payment.

Industrialized nations--in varying degrees--have come to look carefully at the costs of the work place to society, e.g., costs of occupational hazards (not fully reflected in wage differentials) and social costs such as temporary layoffs during retooling. Some internalization of these social costs was achieved through reforms that extend back to the turn of the century. Other social costs have been imposed on employers over the years with the result of a fairly heavy overlay on wages and salaries. These social costs plus social insurance protections amount to one-quarter or even one-third or more of payroll in many firms.

A partial listing of labor costs at issue would include:

- wages and salaries
- other compensation
    - employer contributions for legally required social insurances, including workmen's compensation, unemployment insurance and social security
    - employer contributions to private pension and welfare funds
    - other employee benefits, including health and life insurance and leave time
- personnel costs of new entrants, including recruitment, selection and training costs
- production learning costs, including extra breakage, material wastage and production delays
- severance costs, including direct benefits paid and other turnover costs
- costs of compliance with government rules and regulations, including information costs, for health and safety
- costs of compliance with union rules and regulations on seniority, apprenticeships and work assignments.

A differential demand for workers by age group would arise if the employer's costs for some age groups were higher than for others. Furthermore, if the high cost group has the same or less productivity, clearly employers would shun those in favor of others whose cost/output ratio is more favorable. If labor costs are higher for youths than for adult workers relative to their productivity, then less employment for youths will result.

Indeed, the high unemployment of young persons suggests that a cost differential exists that is disadvantageous to employer hiring of youths. The particular cost differentials that are a barrier to youths' access to jobs require analysis of wage structures, social protections, government regulation, union rules, other costs of production and of employee turnover that are characteristics of each nation. Reduction in unemployment among youths requires diagnosis of the underlying cost differences, and a policy for "treatment" consistent with the diagnosis.

Much attention in the United States has been given to the minimum wage as a contributing factor, with proposals for a lower minimum for young persons. Other cost differentials have been largely neglected, including employer costs for social insurances, and costs of protective legislation and legislation dealing with education, training and apprenticeships. Uniform rules for all age groups do not, as is often assumed, have uniform cost impact. On the contrary, they may create unequal costs. If, as a consequence of youths' characteristic "trial of jobs" and high turnover, unemployment insurance taxes under U.S. practices of experience-rated contributions go up and increase costs to firms hiring youths, job prospects for youths will be reduced.

Many policy changes need to be assessed for employment impact, such as abandoning unrealistic licensing and certification requirements for certain jobs, or easing union restrictions on apprenticeship training and entry into particular trades, or amending coverage of child labor laws and compulsory school attendance laws, or subsidizing employer training and placement costs.

Quite apart from compulsory education laws, the education system may be imposing barriers to job entry. Among the factors at issue are the lengthy period of formal training prior to completion of studies and certification and the mismatch between job requirements and the educational system's output.

Despite the many efforts at recurrent education programs, it is still the rule that formal education through secondary schools and the university remain the preparation for subsequent employment. The more complex the technical and scientific fields, the longer has been the pre-job entry training. While experience on the job is recognized as a qualifying condition at times, the weight remains on pre-job entry training within the academic and qualifying community. At the same time, employing firms have come to question the usefulness of some formal training. Whether the costs of training for firms is reduced by formal training or not is an issue that needs to be considered.

If reforms require a loss of job or protections for some to reduce barriers to access for the young, the conflict between groups is likely to deter actions. Especially difficult is the question: what social purpose is served when unemployment of the father is traded for unemployment of the son? Where are the real equities and what are the relative long-term consequences?

These questions assume a fixed number of jobs in the economy and convey a static picture of economic life that is not wholly realistic. But the restrictive impact of inflationary control measures limit action to expand employment and reduce overall unemployment. Perverse incentives for employment of youths as a structural problem need to be separately considered. The tradeoff between inflation and unemployment must be kept as a cyclical issue to be formulated as a part of the overall fiscal and monetary policies. The confusion of the structural and cyclical questions impairs the design of appropriate policies for each.

In this section, some data on disincentives to the hiring of youths are presented. They include:

- minimum wage provisions and levels of minimum wages in absolute and relative terms over time
- employer-paid compensation to workers additional to wages and salaries over time
- employer costs for training and personnel administration
- regulatory activity imposed on employers.

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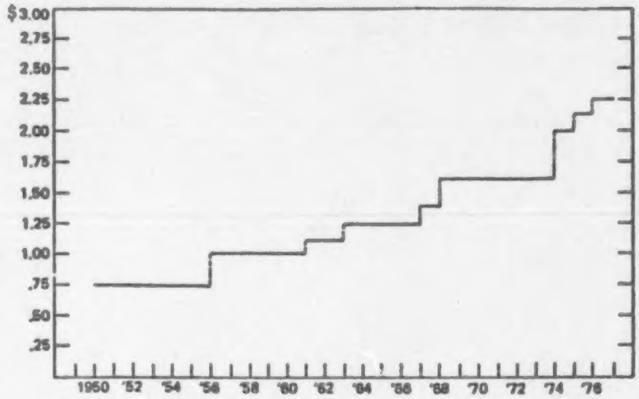
Minimum wages may restrict job entry for youths.

Recent studies in the United States point to the large supply of new young entrants into the work force as well as the artificially raised wages as major contributing factors in youth unemployment. For one thing, it is argued that minimum wage regulation generally has the built-in inflexibility of regulatory policy. Minimum wages have risen irregularly in the United States over time, but not as a percent of the average manufacturing wage.

Chart 6.1A

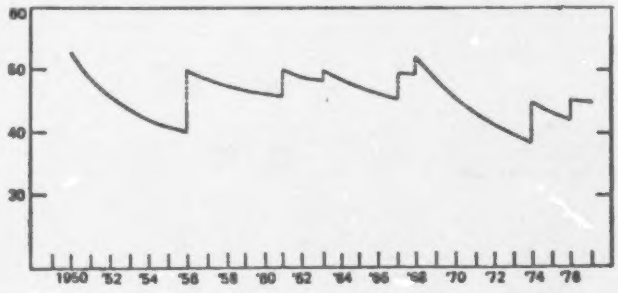
Minimum Wage Level in the United States: Various Years



Despite the rise in the nominal minimum wage in the United States, the minimum as a percent of average wages has remained fairly constant. Moreover, a substantial portion of jobs, especially jobs held by youths, have not been covered by the statutory requirements.

Chart 6.1B

Minimum Wage as a Percentage of Average Wage in Manufacturing in the United States: Various Years



NOTES.—Minimum wages are a usual target of criticism as such regulations have an impact on jobs. Minimum wage regulation is especially likely to have an impact on employment opportunities for youths. When the output of young persons, for whatever reason, does not make it profitable for employers to hire them, theory suggests unemployment is the likely result.

FREQUENCY OF REPORTING: One-time study.

Source of Data: American Enterprise Institute, Minimum Wage Legislation, Washington, D.C., 1977.

Minimum wage laws are less a barrier to youth employment in Europe than in the United States.

Of that small group of nations with statutory minimum wage provisions, only Spain and the United States do not exempt youths or lower the minimum wage amount for youths.

Table 6.2

OECD Nations with Statutory Minimum Wage Rates

Countries	Exclusion of youths or lower minima
Canada	Most provinces have lower rates for young workers
France	10 percent lower rate for workers 17 and 18; 20 percent lower for workers under 17 years of age
Japan	Varies by industries and occupations in each prefecture
Luxembourg	Applies uniformly to workers age 20 or over
The Netherlands	Young workers are covered by a lower minimum
Portugal	Workers under 20 years of age are guaranteed earnings of one-half the adult minimum
Spain	No exemption or lowering
United States	No exemption or lowering

SOURCE: U.S. Department of Labor, Bureau of Labor Statistics, Office of Productivity and Technology, unpublished data, Washington, D.C., 1977.

Minimum wage provisions vary among OECD member nations.

Minimum wages established by collective bargaining are not subject to the rigidity of nationwide statutory minima. Most European nations rely on collective bargaining to establish minima which essentially means wages vary by industry and occupation and depend on the bargaining unit for scope and coverage.

Table 6.3

Summary by Nation of Minimum Wage Provisions in Selected OECD Countries: 1977

<table>
<tr><th>Country</th><th>Summary of provision</th></tr>
<tr><td>Australia</td><td>No general statutory minimum wage. However, Commonwealth and State arbitration bodies (independent judicial bodies appointed by governments to arbitrate labor-management disputes) make wage awards in cases brought for settlement. Because most labor-management negotiations are referred to arbitration bodies, most of the wage and salary work force are covered by wage awards. These awards in effect provide minima for specific occupations and industries; actual pay rates in most cases are determined by supplementary bargaining. Commonwealth award wage rates are presently adjusted quarterly for increases in the consumer price index, although adjustments may not always reflect the full consumer price rise.</td></tr>
<tr><td>Austria</td><td>Austria has no general legislation regarding minimum wages and salaries, which are established through collective bargaining for 90 percent of all employees. Only in the absence of a collective agreement can minimum wage rates in the private economy be set by a Government agency. Such minimum rates must be comparable to prevailing wages for similar work in the same area.</td></tr>
<tr><td>Belgium</td><td>Minimum wages are established through collective bargaining for individual trades and industries by region or for the entire country. The minimum wage levels so established are made compulsory for other employees and workers not party to the collective bargaining agreements by Royal Decree. In early 1975, a general monthly minimum wage was also established by collective agreement by the National Labour Council (a joint labor-management advisory council with public agency status and power to conclude general collective agreements) and made mandatory by Royal Decree. The new general minimum wage covers all full-time employees over 21 years of age. All wages and salaries, including the minimum wage, are adjusted regularly for increases in the cost of living. In December 1976, the monthly minimum wage was 18,524 francs ($513.10).</td></tr>
<tr><td>Canada</td><td>Most minimum wage legislation is under provincial jurisdiction. In most provinces, minimum wage orders now cover all employees except farm labor and private domestics. Wage rates are the same for both sexes. Most provinces have special rates for young workers. The age limit for the young worker rate is generally 17 or 18 years. The federal government establishes minimum wages for businesses under federal jurisdiction (primarily the transportation, communication and banking industries).
The minimum rates in effect at the beginning of 1977 in selected provinces are:
<table>
<tr><th>Province</th><th>Adult workers C $</th><th>Young workers and students C $</th></tr>
<tr><td>Alberta</td><td>3.00</td><td>2.85 1/</td></tr>
<tr><td>British Columbia</td><td>3.00</td><td>2.60</td></tr>
<tr><td>Manitoba</td><td>2.95</td><td>2.70</td></tr>
<tr><td>New Brunswick</td><td>2.80</td><td>--</td></tr>
<tr><td>Newfoundland</td><td>2.50</td><td>--</td></tr>
<tr><td>Nova Scotia</td><td>2.75</td><td>2.50</td></tr>
<tr><td>Ontario</td><td>2.65</td><td>2.15 2/</td></tr>
<tr><td>Prince Edward Is.</td><td>2.70</td><td>2.35</td></tr>
<tr><td>Quebec</td><td>3.00</td><td>2.80</td></tr>
<tr><td>Saskatchewan</td><td>3.00</td><td>--</td></tr>
</table></td></tr>
<tr><td>Denmark</td><td>No general statutory minimum wage. Minimum wages are established through collective bargaining by highly organized labor-management organizations in a legally prescribed multi-level negotiating system. Nearly all wages and salaries are adjusted twice a year for changes in the cost of living. In April 1977, after a long negotiating impasse between labor and management, the Danish Government gave legal force to a national wage agreement for time-rated workers formulated by the State Mediation Board. The new two-year agreement contained two innovations in the time-rate wage system. For the first time, workers were guaranteed a minimum hourly wage payment (basic rate plus skill adjustments and local or personal adjustments), set at 29 krona ($4.83). The new general minimum wage primarily affects unskilled workers in food and clothing firms. Secondly, the wage indexation system was modified. Workers may not receive directly all of their cost-of-living adjustments; adjustments over a prescribed limit will be paid into a supplemental pension fund instead.</td></tr>
<tr><td>France</td><td>A national minimum wage, the Salaire Minimum de Croissance (SMIC), covers all employees except farm workers and private domestics. Lower rates are provided for young workers--10 percent less than the adult rate for workers between 17 and 18 years of age, and 20 percent less for workers under 17 years. Lower rates are also provided for apprentices and handicapped workers. On July 1, 1977, the SMIC for adult workers was raised to 9.58 francs ($1.93) per hour, or 1,662.95 francs ($335.75) per month on the basis of a standard 40 hour week. Since December 1972, all workers with a labor contract are guaranteed a monthly minimum wage. According to law, the SMIC must be raised whenever the national consumer price index increases 2 percent. In addition, the SMIC must be adjusted at least annually to reflect at least 50 percent of the increase in the purchasing power of average earnings in commerce and industry over the relevant period.</td></tr>
</table>

1/ Part-time students: $2.50.
2/ Part-time students only.

Germany	No legal minimum wage. Labor-management agreements have the effect of setting minimum wages, by establishing regional industry-wide rates. The rates agreed upon also apply to non-union members employed by a company which is a party to an agreement. A 1952 law on minimum working conditions authorizes the Federal Labor Minister under certain conditions to fix minimum wage standards in a particular industry if the particular industry has no unions or employers' associations. In actual practice, the law has not been used to establish minimum wages.
Ireland	In certain industries, such as tailoring, tobacco, sugar confectionery and creameries, minimum wages are fixed by the Labour Court on the recommendation of statutory wage boards. Otherwise, wages are generally determined by collective bargaining. Collective agreements may be registered with the Labour Court and become legally binding on all workers and employers in the particular industry concerned.
Italy	No statutory minimum wage law. Minimum wage rates are established by collective bargaining agreements. The Government may extend, by legislative decree, the rates set by collective agreements to all workers not so covered. All wage and salary workers receive automatic cost-of-living supplements to compensate for increases in consumer prices.
Japan	Statutory minimum wages are established separately for individual industries and occupations in each prefecture. According to the provisions of the 1959 Minimum Wage Law, minimum wages may be established by the Directors of each prefectural Labor Standards Office. The minimum wage rates are determined by tripartite (Government, employers and labor) Minimum Wage Councils. Minimum wages established through collective bargaining may also be extended to other workers in the same industry not party to the collective bargaining agreement. In late 1976, the general minimum wage covering all workers, including part-time and casual workers, was 2063 yen ($7.44) per day in Tokyo. Workers in selected industries were covered by higher minimum wages.
Luxembourg	Legal hourly minimum wages apply to wage and salary workers age 20 and over, with rates varying by industry and skill, with automatic adjustments whenever the official consumer price index rises 2.5 percent. According to a law of December 3, 1973, the Government must submit to Parliament every two years a report on the trend in incomes, accompanied, where necessary, by a draft law for a non index-based increase in the minimum wage rate. In 1976, the rate was adjusted three times following changes in the price index. In addition, the minimum rate was increased 4 percent in real terms (i.e., independently of the index arrangement) on January 1, 1977. With the January 1 increase, the minimum wage was 15,480 Luxembourg francs per month ($428.90), or 89.50 francs per hour ($2.48).
Netherlands	A statutory minimum monthly wage covers all adult and young workers. Young workers under 23 years of age are covered by a lower minimum rate. On January 1, 1977, the monthly minimum wage for adults was 1,537.90 guilders ($625.95). The minimum wage is adjusted every January and July according to the trend in average contractual wage rates over the 6-month periods ending in October and April, respectively.
Norway	No legal minimum wage. Employers and employees are highly organized, and minimum rates are set through industry-wide labor-management agreements.
Portugal	In June 1974, the first minimum wage law was passed, establishing a minimum wage rate of 3300 escudos ($85.20) per month. Wages for nearly 50 percent of workers over 20 years of age were affected. However, the minimum wage was only partially enforced in some sectors where too steep a rise in wage costs would have bankrupted firms. As of January 1, 1977, the minimum wage rate was 4,500 escudos ($116.20) per month for all non-farm adult workers except private domestics and 3,500 escudos ($90.35) per month for adult farm workers. Workers under 20 years of age are guaranteed earnings of one-half the adult minimum.
Spain	The Ministry of Labor establishes a basic minimum wage for unskilled workers in all occupations for the entire country. This minimum wage was set at 380 pesetas ($5.51) per day as of October 1, 1976. Increases are linked to changes in the cost of living. In addition, the Ministry of Labor, in consultation with the National Labor Council and the Syndical Organization, may act to set statutory minimum rates for different occupational categories within an industry or a region. These minimum standards may be improved either through collective bargaining or voluntary action by the employer.
Sweden	No legal minimum wage. Minimum rates are established through collective bargaining by highly organized management and labor organizations, and usually apply to all workers. Rates vary by area, industry, occupation, skill, age and sex, and are adjusted for changes in the cost of living according to negotiated provisions.
Switzerland	No legal minimum wage. Rates are set through collective bargaining without government control.
United Kingdom	Statutory minimum wages for selected industries only. Minimum wage rates are established through collective bargaining for most industries and trades. For those industries and trades where, because of insufficient organization among workers and employers, satisfactory voluntary collective bargaining does not exist, minimum wages and standard hours are established by wage councils. The councils are independent bodies composed of an equal number of workers and employers and not more than three independent members. Government policy has been to encourage the development of voluntary collective bargaining and to abolish councils where they are no longer necessary. In 1976, nearly three million workers (about 13 percent of all employees) were covered by wage councils.

NOTES.—Current (as of August 1977) statutory rates are provided where available. In some cases, the minima are set on a monthly rather than hourly basis; these generally apply to workers with labor contracts for full-time work. All conversions of the wage rates to U.S. dollars have been made using May 1977 exchange rates. However, the U.S. dollar figures do not indicate relative living standards for workers receiving the minima because prices of goods and services vary greatly among countries.

SOURCE: U.S. Department of Labor, Bureau of Labor Statistics, Office of Productivity and Technology, unpublished data, Washington, D.C., 1977.

Direct employer contributions for fringe benefits reached up to one-third of wages in 1975.

In addition to contributions to social insurances and private pension and welfare funds, employers may be required to pay general taxes on business transactions, such as the value added tax, which may help finance social benefits to workers and their families. Even uniform levies, when applied under diverse circumstances, may result in unequal incentives to hire youths. Small firms employing youths in the United States subject themselves to potential rise in unemployment contribution rates due to experience rating. Workmen's compensation rates in the United States also are experience rated. Most European systems do not vary employer contributions by their individual benefit experience with lesser incentive to discriminate against youths.

Table 6.4

Employer Compensation, Other than Wages, as a Percent of Wages and Salaries in Selected OECD Countries: 1960, 1965, 1970, 1975

	Employer contribution to social insurances				Employer contribution to private pension and welfare funds			
	(As a percent of wages and salaries)							
Country	1960	1965	1970	1975	1960	1965	1970	1975
Canada	2.2%	2.1%	3.3%	4.6%	2.5%	2.8%	2.7%	3.6%
Denmark	0.9	1.6	1.3	1.1 1/	NA	NA	NA	NA
Finland	4.5	5.5	6.7	8.4	6.4	8.8	10.2	13.5
France	NA	NA	25.3	26.6	NA	NA	6.7	6.7
Germany	12.8	11.8	13.8	17.2	1.9	1.5	1.5	1.6
Ireland	1.3	1.8	2.8	NA	NA	NA	NA	NA
Japan	3.9 2/	4.8 2/	5.5 2/	6.3 2/	-- 3/	-- 3/	-- 3/	-- 3/
Netherlands	NA	NA	16.4	20.1	NA	NA	7.6	8.9
Sweden	7.2 2/	11.6 2/	14.9 2/	24.2 2/	-- 3/	-- 3/	-- 3/	-- 3/
United Kingdom	3.0	4.3	4.9	6.7	4.4	4.6	5.2	5.9
United States	4.4	4.7	5.7	7.4	4.1	4.9	5.8	7.7

1/ 1974.
2/ Figure includes "employer contribution to private pension and welfare funds."
3/ Figure is included in "employer contribution to social insurances."

NOTES.—Differences in rates reflect the method of financing the social protection program (general tax financing is excluded).

SOURCE: All countries except the United States: Organization for Economic Cooperation and Development, National Income Accounts, Paris, 1977; United States: U.S. Department of Commerce, Bureau of Economic Analysis, Survey of Current Business, 1976.

Structure of compensation other than pay for time worked varies from country to country.

In the United Kingdom, despite the sizable general revenue financing of social protections that free employers of direct payroll costs, compensation other than pay of production workers in manufacturing accounts for 16 percent of the total. In Sweden, the share of such compensation other than pay reaches 33 percent of the total; in the United States, it is 23 percent of the total.

Stated differently, if the average hourly earnings of production workers are taken as equal to 100, the index of total compensation reaches only 118.5 in the United Kingdom, 149.5 in Sweden and 130.0 in the United States. The larger added payroll cost on employers in Italy is shown in the 186.7 index of total compensation.

Table 6.5

Structure of Compensation of Production Workers in Manufacturing in Selected OECD Countries: Various Years

Total Compensation=100

Country	Year of labor cost survey	Pay for time worked 1/	Other direct payments to workers				Employer social security expenditures			Other taxes or subsidies 3/	Total compensation 4/	Total compensation with average hourly earnings equal to 100
			Pay for leave time 2/	Bonuses	Pay in kind	Total	Legally required insurance	Private welfare plans	Total			
Belgium	1972	60.9	12.8	3.5	0.2	16.5	22.2	0.4	22.7	0.0	100.0	164.3
Canada	1971	83.1	7.7	0.2	0.6	8.5	3.8	4.6	8.4	0.0	100.0	120.4
France	1972	61.6	8.5	3.0	1.0	12.4	22.5	3.5	26.0	0.0	100.0	162.3
Germany	1972	67.2	11.2	3.5	0.3	15.0	16.6	1.2	17.8	0.0	100.0	148.0
Italy	1972	53.6	9.9	8.4	0.2	18.5	27.3	0.6	27.9	0.0	100.0	186.7
Japan	1971 5/	61.6	3.1	21.3	2.8	27.3	5.2	6.0	11.2	0.0	100.0	113.2
Netherlands	1972 5/	62.4	12.5	4.3	0.7	17.5	14.2	5.9	20.1	0.0	100.0	160.2
Sweden	1976	66.9	8.5	-- 6/	-- 6/	8.5	18.1	3.5	21.6	3.0	100.0	149.5
United Kingdom	1973	83.9	7.9	0.5	0.1	8.5	6.0	2.4	8.4	-0.8	100.0	118.5
United States	1974	76.9	6.8	0.4	-- 7/	7.2	7.0	8.9	15.9	0.0	100.0	130.0

1/ Basic time and piece rates, overtime premiums and shift differentials, regular bonuses and premiums and cost-of-living adjustments.
2/ Excluding sick leave pay which is included in social security expenditures.
3/ Taxes (other than social security taxes) on payrolls or employment that are regarded as labor costs less related subsidies.
4/ Including other taxes or subsidies.
5/ All employees.
6/ Included in pay for leave time.
7/ Not included.

NOTES.—The U.S. Department of Labor, Bureau of Labor Statistics, prepared this table using labor cost surveys conducted by national statistical offices. Data refer to production workers in establishments of all sizes in the United States and Sweden; production workers in establishments with 20 or more employees in Canada; production workers in establishments with 50 or more employees in Belgium, France, Germany, Italy and the United Kingdom; all employees in establishments with 50 or more employees in the Netherlands; and all regular employees in establishments with 30 or more regular employees in Japan.

SOURCE: U.S. Department of Labor, Bureau of Labor Statistics, unpublished data, January 1978.

Employer compensation other than pay for time worked has increased sharply in recent years in most industrialized OECD countries.

Employer compensation, including employer social security expenditures, has been rising faster than pay for time worked, thus altering the links between productivity and costs to employers of hiring employees and tending to distort relative costs of labor and capital. Employer costs of labor are far larger than pay for time worked, increasing the cost load associated with the hiring of youths.

Table 6.6

Change in Employer Compensation for Production Workers in Manufacturing Additional to Pay in Selected OECD Countries: 1960-1976, 1970-1976

Country	Percentage increase in wage supplements relative to percentage increase in average hourly earnings 1960-1976	1970-1976
Belgium	90.0%	31.5%
Canada	62.3	26.3
France	25.0	12.9
Germany	82.8	46.0
Italy	39.9	24.6
Japan	13.5 1/	8.3 1/
Netherlands	74.5 1/	18.5 1/
Sweden	203.7	79.3
United Kingdom	124.8	63.3
United States	79.4	30.8

1/ All employees.

NOTES.—This table was calculated from data compiled by the U.S. Bureau of Labor Statistics from 10 countries on compensation of production workers in manufacturing. The data are from labor cost surveys conducted by national statistical offices. The average hourly earnings data which are the base for assessing compensation may not include the same items in each country. Earnings generally include basic time and piece rates, overtime pay and shift differentials, regular bonuses and premiums and cost of living adjustments. In some countries, earnings also include bonuses not paid regularly each pay period, private or contractual family allowances paid by the employer and pay in kind. In general, earnings are computed per hour paid and include pay for time not worked (holiday, vacation and other leave pay) or else are computed per hour worked and exclude pay for time not worked. For all countries, earnings refer to gross payments made to the worker before payroll deductions for taxes and social security benefits.

Average hourly earnings have, for some years where possible, been adjusted to account for changes in coverage, sample benchmarks or frequency of surveys. They have not been adjusted for differences in earnings definitions or for survey limitations, such as the omission of small establishments.

The Bureau of Labor Statistics estimates hourly compensation by adjusting average hourly earnings for items of direct pay not included in earnings and for employer expenditures for social security and contractual and private insurance programs and for other labor taxes. These adjustment factors were primarily obtained from periodic labor cost surveys prorated for intervening years on the basis of other available information. BLS states that because compensation is partly estimated, small differences in compensation levels among countries should not be considered significant.

Total hourly compensation includes all direct payments made to the worker (pay for time worked, pay for vacations, holidays and other leave, all bonuses and pay in kind) before any kind of payroll deductions plus employer expenditures for legally-required insurance programs and contractual and private plans for the benefit of employees. Compensation also includes other significant taxes on payrolls or employment that are regarded as labor costs. It does not include general revenues used for social protection.

SOURCE: U.S. Department of Labor, Bureau of Labor Statistics, unpublished data. January 1978.

Social security provisions often require additional government taxes.

Public social security laws are often financed by government contributions out of general taxes rather than direct employer contribution. General tax levies may also raise employer costs and affect their competitive position. The incidence of general taxes, however, is neutral with respect to age of employee covered by social security.

Table 6.7

Funding of Social Taxes in Selected OECD Countries: 1975

Country	Employer contributions		Employee contributions		Extent of funding from general revenues
	Tax rate as a percent of base wage 1/	Maximum earnings for contribution purposes	Tax rate as a percent of base wage 1/	Maximum earnings for contribution purposes	
Australia	Workmen's compensation only			None	Entire cost (except workmen's compensation)
Austria	20% (including 6% family allowance)	83,850-147,000 (schillings/yr. ($14,841-$26,018)	12.5%	83,850-147,000 schillings/yr. ($14,841-$26,018)	Moderate (mostly subsidizes deficits)
Belgium	20.5% (including 10.25% family allowance)	275,400-435,100 francs/yr. ($1,031-$1,704)	10.0%	275,400-435,100 francs/yr. ($1,031-$1,704)	Large (substantial subsidy and high percent of costs of some pensions/benefits)
Canada	4.6% (plus whole cost for work injury through contributions varying by industry)	$7,400-$12,000 Canadian $/yr. ($7,252-$11,760)	5.0% (no cost for work injury on family allowance)	$7,400-$12,000 Canadian $/yr. ($7,252-$11,760)	Large (whole cost of family allowance + large percent of costs of certain insured services
Denmark	433 kroner/yr. + cash benefits, whole cost for first 5 weeks of disability	33,950 kroner/yr. ($5,357)	136 kroner/yr. + voluntary cash benefit insurance against first 5 weeks of incapacity + annual contributions of 2-1/4 times rate of daily cash UR benefit	33,950 kroner/yr. ($5,357)	Large (including whole cost of family allowance and whole cost of disability after 5th week
Finland	22% (including 1.75% family allowance)	None	4%	None	Large (especially for unemployment and family allowance)
France	23% (including 9% for family allowance) + 10.45% of earnings below 2,750 francs/mo. for sickness and maternity*	33,000-132,000 francs/yr. ($7,235-$28,941)	4.5% (+2.5% of earnings below 2,750 francs/mo. for sickness and disability)	33,000-132,000 francs/yr. ($7,235-$28,941)	Small (whole cost of unemployment "assistance" and some funds for specific purposes
Germany	21% (slightly more for employees with earnings below 10% of ceiling)	22,500-36,000 DM/yr. ($9,069-$14,510)	19% (slightly less for employees with earnings below 10% of ceiling)	22,500-30,000 DM/yr. ($9,069-$14,510)	Large (including whole cost of family allowance and substantial subsidization of benefits)
Ireland	100 Irish pounds/yr. + 2% of payroll*	2,500 Irish pounds/yr. $5,850)	65 Irish pounds/yr. + 1% of earnings	2,500 Irish pounds/yr. ($5,850)	Large (about 20% of total + whole cost of unemployment assistance and family allowance)
Italy	38% of payroll (varies substantially with occupation)	676,000-1,300,000 lire/yr. ($1,013-$1,949)	7% of earnings	676,000-1,300,000 lire/yr. ($1,013-$1,949)	Small (subsidies and administrative costs)
Netherlands	26% of payroll	23,400-42,640 guilders/yr.	22% of earnings	23,400-42,640 guilders/yr.	Moderate (large portion of family allowance and certain deficits and subsidies)
Norway	16.7%	12 x "base amount"; for benefit purposes, 8 x "base amount" plus 1/3 of earned income between 8 x and 12 x "base amount"	base amount = 11,000 kroner/yr. ($2,046)	12 x "base amount"; for benefit purposes, 8 x "base amount" plus 1/3 of earned income between 8 x and 12 x "base amount"	Moderate (including whole cost of family allowance and small percent of pension producing income)
Sweden	22% of payroll to a limit + 66-2/3% of cost of labor market support program	5 x "base amount" and up; base amount = 9,000 kroner/yr. ($2,093)	180 kroner/yr. ($42) for union-related UR insurance; no other contributions unless self-employed	5 x "base amount" and up; base amount = 9,000 kroner/yr. ($2,093)	Very large (including whole cost of family allowance, 55% of cost of universal pension, 33-1/3% of cost of labor market support program)
Switzerland	7% + whole cost for work injury	20,800-46,800 francs/yr. ($7,656-$17,225)	6% of earnings + membership fees for sickness and maternity funds (73% of cost) + 20 francs for UR insurance annually	20,800-46,800 francs/yr. ($7,656-$17,225)	Moderate (federal subsidies often based on membership and benefits provided)
United Kingdom	8.5% of payroll	3,588 pounds/yr. ($8,324)	5.5% of earnings	3,588 pounds/yr. ($8,324)	Large (whole cost of family allowance, 85% of cost of National Health Service, 18% of cost of social insurance system)
United States	9% of payroll (varies with differences in state contribution rates)	$3,120-$14,000/yr.	7% of earnings	$3,120-$14,000/yr.	Small (mostly special benefits and administration costs)

1/ Percents are approximations with the exception of those for the United Kingdom.

NOTES.—The rates of exchange shown are as of December 31, 1976. When converting monetary amounts given in foreign currencies to U.S. dollars, adjustments should be made for any subsequent currency fluctuations. This table includes social security (FICA), unemployment compensation and workman's disability. It should be noted that the range of earnings limits is due to different taxes having different limits.

SOURCE: U.S. Department of Health, Education, and Welfare, Social Security Administration, Office of Research and Statistics, Social Security Programs Throughout the World 1975, Washington, D.C., 1975.

Total employee benefits in the United States are estimated at 35 percent of payroll.

Employee benefits extend beyond the social security-type provisions adding to employer costs per job. In the United States, employer compensation (other than wages and salaries) were estimated at 35.4 percent of payroll in 1975; the following chart of employee benefits places the cost of manufacturing at 36.1 percent of payroll and for all other industries, slightly below.

Table 6.8

Employee Benefits by Type of Payment in the United States: 1975

Type of benefit	Total, all companies	Total, all manufacturing	Total, all nonmanufacturing
Total employee benefits as percent of payroll	35.4%	36.1%	34.4%
1. Legally required payments (employer's share only)	8.0	8.8	6.9
Old-Age, Survivors, Disability and Health Insurance	5.7	5.8	5.4
Unemployment Compensation	1.0	1.2	0.8
Workmen's compensation (including estimated cost of self-insured)	1.2	1.7	0.6
Railroad Retirement Tax, Railroad Unemployment and Cash Sickness Insurance, state sickness benefits insurance, etc. 1/	0.1	0.1	0.1
2. Pension and other agreed-upon payments (employer's share only)	11.6	11.6	11.4
Pension plan premiums and pension payments not covered by insurance type plan (net)	5.5	4.9	6.4
Life insurance premiums, death benefits, accident and medical insurance premiums, hospitalization insurance, etc. (net)	5.2	6.1	3.8
Salary continuation or long-term disability	0.2	0.2	0.2
Dental insurance premiums	0.1	0.1	0.1
Discounts on goods and services purchased from company by employees	0.2	-- 2/	0.3
Employee meals furnished by company	0.2	0.1	0.3
Miscellaneous payments (compensation payments in excess of legal requirements, separation or termination pay allowances, moving expenses, etc.)	0.2	0.2	0.3
3. Paid rest periods, lunch periods, wash-up time, travel time, clothes-change time, get-ready time, etc.	3.6	3.7	3.5
4. Payments for time not worked	10.1	10.1	10.3
Paid vacations and payments in lieu of vacation	5.2	5.4	4.8
Payments for holidays not worked	3.3	3.5	3.2
Paid sick leave	1.2	0.8	1.8
Payments for State or National Guard duty, jury, witness and voting pay allowances, payments for time lost due to death in family or other personal reasons, etc.	0.4	0.4	0.5
5. Other items	2.1	1.9	2.3
Profit-sharing payments	1.1	1.1	1.1
Contributions to employee thrift plans	0.3	0.2	0.4
Christmas or other special bonuses, service awards, suggestion awards, etc.	0.4	0.4	0.4
Employee education expenditures (tuition refunds, etc.)	0.1	0.1	0.2
Special wage payments ordered by courts, payments to union stewards, etc.	0.2	0.1	0.2
Total employee benefits as cents per payroll hour	193.7 cents	191.3 cents	195.8 cents
Total employee benefits as dollars per year per employee	$3984.0	$3954.0	$4025.0

1/ Figure shown is considerably less than legal rate, as most reporting companies had only a small proportion of employees covered by tax.

2/ Less than 0.05 percent.

NOTES.—The figures shown are averages and do not show variations among firms and industries when rates are varied by experience or merit provisions. The data is taken from a study by the United States Chamber of Commerce based on a survey of 761 non-government employers. The sample has good representation from both manufacturing and non-manufacturing companies but it is obviously biased toward companies that keep detailed records; in all likelihood, large companies dominate the sample and small companies are seriously under-represented.

The items in this chart which match the national income data are groups 1, 2 and 5. Groups 3 and 4 are, with a few minor exceptions, included in wages and salaries. Group 1, "legally required payments," corresponds to the national income account "Employers' Contributions to Social Insurance." The totals for the groups as a percent of wages and salaries were 8.0 percent in this study and 7.4 percent in the national income account. Groups 2 and 5 together correspond approximately to the national income account "Employers' Contributions to Private and Pension and Welfare Systems." The total for groups 2 and 5 as a percent of wages and salaries were 13.7 percent in this study and only 7.6 percent in the national income account. This difference is probably due to the dominance of large companies in the sample.

FREQUENCY OF REPORTING: One-time study.

SOURCE: The Chamber of Commerce of the United States of America, Employee Benefits 1975, Washington, D.C., 1976.

The employment cost impacts of social benefits for youths vary in the United States.

Flat rate or uniform percentage payments by employers on behalf of employees for social security (and other employee benefits) do not mean equal costs. Yet, analyses are lacking of real cost differentials by age of employee.

Relevant considerations that make for differences in employer costs by age of employee need such analyses. These include base of contributions, experience rating, types of industries covered and excluded in relation to young workers' employments and, also, methods of counting apprenticeships.

Table 6.9

A Summary of Employer Cost Impacts of Social Benefits for Youths in the United States

Type of benefit	Factors contributing to cost variation by age of employee	Effect on cost of employing youth
Old age and survivors disability insurance	Uniform percentage up to maximum on taxable earnings; youths generally lower paid and under maximum	Increase
Unemployment compensation	Maximum on earnings plus experience rating coupled with youth job turnover	Increase
Workmen's compensation	Experience rated and high in construction where many male youths are employed	Increase
Private pension plans	Generally experience rated with young workers less costly, especially if period of qualifying employment prior to eligibility is required	Decrease
Health insurance plans	Private carrier plans experience rated; most Blue Cross-Blue Shield plans have no uniform rate	Decrease when experience rated
Payments for time not worked	Vacation time and sick leave may be higher for youths depending upon attitudes toward work and leisure	--

NOTES.—Corporate tax rates reduce costs of employee benefits to employers in the United States by almost 50 percent for larger profit firms. Comparative tax rates on businesses among the European countries have to be taken into account.

Income of youths relative to other workers has not increased in recent years.

Income of young year-round full-time workers relative to all workers was not higher in 1975 than it was in earlier years and thus did not constitute an increasing financial disincentive to the employment of youths.

Table 6.10

Median Income of Year-Round, Full-Time Workers by Age in the United States: 1968, 1970, 1975

Year	Annual income			Income ratios	
	14 years of age and over	14-19 years of age	20-24 years of age	14-19/14+	20-24/14+
			Males		
1968	$7,814	$2,702	$5,659	.346	.724
1970	9,184	3,950	6,655	.430	.924
1975	13,144	5,657	8,521	.430	.725
			Females		
1968	4,560	3,082	4,214	.676	.906
1970	5,440	3,783	4,928	.695	.648
1975	7,719	4,568	6,598	.592	.855

NOTES.—Data were collected through the Current Population Survey conducted each March. The survey results cover both the civilian non-institutional population and the Armed Forces living in the United States. Data on consumer income are limited to money income received before payments for personal income taxes and deductions for social security, union dues, Medicare premiums, etc.
FREQUENCY OF REPORTING: Annual.

SOURCE: U.S. Bureau of the Census, Current Population Reports, Series P-60, Nos. 66, 80, 105, "Income of Families and Persons in the United States," Washington, D.C., 1969, 1971, 1977.

Costs of government regulation are high and discourage the employment of youths.

Rules are imposed on the hiring of youths and their working conditions that limit the supply of workers or raise the costs of jobs for youths. While costs of compliance with governmental regulations are thought to be high, studies that would help quantify such costs are at best in a rudimentary stage. To illustrate the complexity of regulatory action, an example is given. Recent Senate action in the United States imposed a 10 year old age floor on employment in agriculture (in place of an earlier 12 year restriction) but (a) limited the time a young person could work in the field to eight weeks, (b) barred exposure to pesticides, and (c) required the Secretary of Labor to determine that no older workers are available.

Table 6.11

Types of Regulatory Activity Imposed by Employer Costs

General types of costs and offsets associated with regulations:

- Cost of information about regulations
- Breakeven point of costs if found in violation and costs of compliance (depends on probabilities of apprehension and extent of risk aversion)
- Tax offsets against costs of compliance

Regulated aspects of youth employment:

- Limitation on working age
- Compulsory schooling requirements
- Extra safety conditions for youth employment
- Extra health conditions for youth employment
- Training and apprenticeship requirements
- Tax differentials related to job access for youths
- Other protective laws

Training costs vary by industry and skill level; rising as skills increase.

Every job has a training component. In unskilled jobs, the specialized training is likely to be very little; where the "tools" for the job are where the job itself is. In the more complex professional and managerial work, extensive in-house training may be required and even further training may be provided as an opportunity to be taken up at the option of the employer. Youths who enter the labor market at an early age and are unskilled tend to have both less formal education and less employer input for training. Inequities of opportunity are compounded in this process. But employer costs of training where these generalizations apply vary with wage and salary costs and tend to be a substantially larger share of wages for the higher paid technical and professional worker.

Table 6.12A

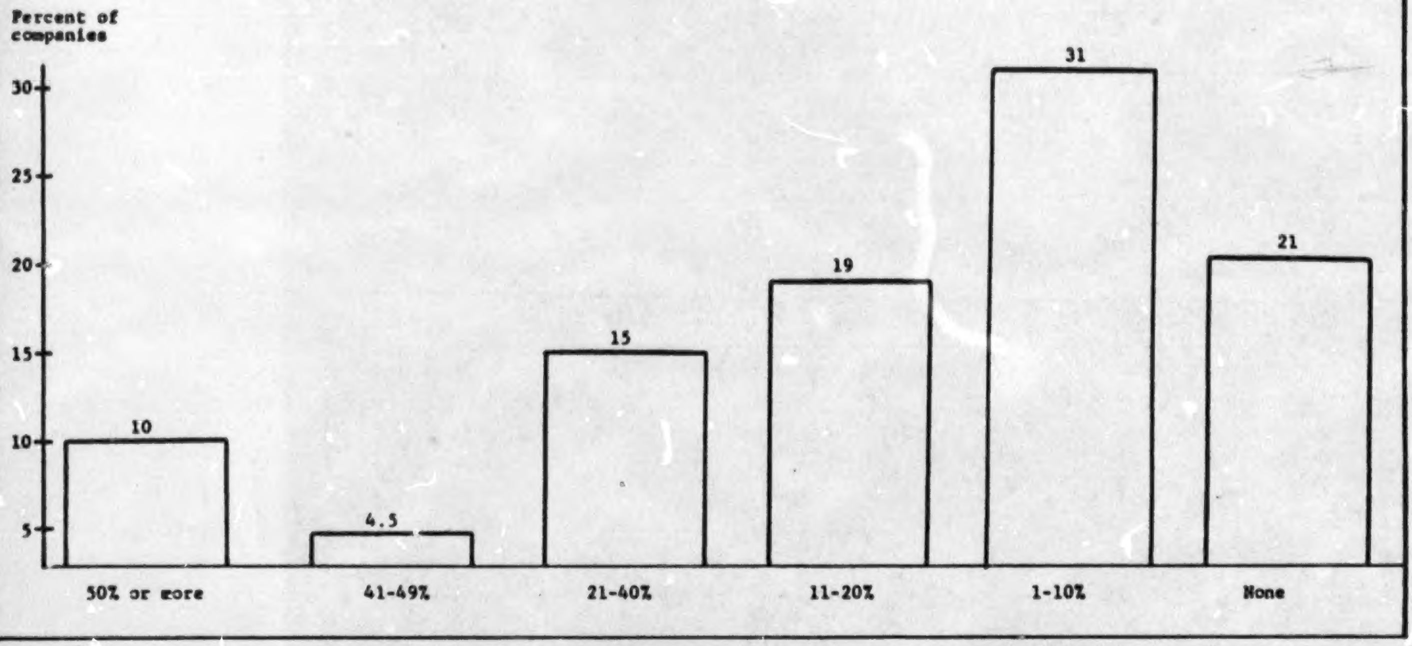
Expenditures for Company Courses by Company Type 1/ in the United States: 1975

	Total	Manufacturing	Transportation, communications, utilities	Wholesale and retail	Financial and insurance	All others
Expenditures per employee (mean)	$53.90	$53.60	$84.10	$16.90	$66.50	$21.60

1/ Figures include the cost of co[illegible] taken outside the company during working hours as well as inside. Outside expenditures account [illegible] one-tenth of the total.

Chart 6.12B

Portion of Training Expenditures Accounted for by New Employees in the United States: 1975



NOTES.—This information was obtained from the questionnaire dispersed by the Conference Board to 610 companies with 500 or more employees.
FREQUENCY OF REPORTING: Data updated irregularly.

SOURCE: Conference Board, Inc., Seymour Lusterman, Education in Industry. New York, 1977.

Personnel administration costs were set at 8 percent of payroll in an industry for which data are available.

A special study of retail stores found that personnel administration costs, including hiring, training and other personnel actions, amounted to 8 percent of total payrolls; 3 percentage points higher than employee benefit and social security tax costs for the year of the study (1956). To the extent that high youth turnover rates lead to a larger volume of personnel activity, the costs of personnel administration attributable to youths is likely to exceed that of other workers.

Table 6.13

Personnel Administration Costs

Type of personnel activity	Costs
. Recruitment	8% of payroll
. Selection	
. Job classification	
. Payment setting and pay procedures	
. Training and other personnel development activities	
. Administration of employee benefits	
. Other	

NOTES.—Data on these costs are practically nonexistent. The problem is that only companies that engage in very detailed cost accounting can report such costs and relatively few companies undertake this kind of accounting and even fewer report such data in any published sources.

The above data is that of department and specialty stores that reported to the Harvard University Bureau of Business Research. The department store data do not represent the entire United States economy, but they do suggest that these costs are significant and undoubtedly affect employment decisions.

FREQUENCY OF REPORTING: One-time study.

SOURCE: Harvard University, Graduate School of Business Administration, Division of Research, *Operating Results of Department and Specialty Stores in 1956*, Boston, 1957.

SECTION SEVEN: SOCIAL COSTS RELATED TO EDUCATION AND YOUTH UNEMPLOYMENT

Youth unemployment results in personal frustration and social alienation. Altogether, little attention has been focused on the dynamics of unemployment which can be described statistically only by following over a period of years the experience of an age cohort that has been subject to much unemployment.

Unemployment, research study suggests, is an important determinant of ill health and may increase mortality. To the extent that unemployment is stressful, the voluminous documentation of the relation between stress and illness underscores impaired health as a cost of unemployment.

Other research has been concerned with unemployment as a contributing factor in crime and drug abuse. Evaluation studies of correctional activities, for example, indicate that with few and very isolated exceptions, rehabilitation efforts have so far had no appreciable effect on recidivism. At the same time, a tough policy on sanctions also has been found deficient. Little hard evidence exists that would suggest that punishment of criminal behavior works to deter crime. Research findings point to the critical role of a job and steady income in rehabilitation. Unless drug abusers and those with criminal records can find work, the chances of recidivism are high.

Unemployment exacts a price in lack of self-esteem and in personal despair or in a fatalism that denies the possibility of improvement through personal action. Social ills are linked to these negative self-concepts with resulting public dependency and the higher costs of that dependency. The list, in addition to drug abuse and crime, is lengthy and includes venereal disease, drunkenness, child abuse and mental illness, among others. Physical deterioration of neighborhoods is partly a result as is the defacing of public facilities, such as mass transit and school buildings.

Some part of a nation's bill on crime and other social ills is a cost of past neglect of youth unemployment. Avoidance of such costs for new groups in the future is an avoidance offset against the cost of action on youth unemployment. Quantification of such avoidance offsets is a significant task that lies ahead. The bill to society of crime and other social ills is likely to be a continuing one.

The costs in human deterioration are societal costs but they are also costs to industry in the uncertainties about the future they generate at the one extreme and the routine security guard costs on the other. Again, quantification would help put in context the cost of action to reduce or prevent mounting unemployment versus the cost of direct action to remedy unemployment.

Unemployment trends are somewhat predictable because the population that will be 16 in the mid-1980's is now born and those who will be aged I7, 18, 19 are part of the demographic records of each country. The long-term outlook on youth unemployment for the nations tends to be favorable because the population bulge is part of history and in years ahead, although in different years in different countries, the numbers of youths will decline both in relative and absolute terms. But tomorrow's cost to society and industry as a consequence of today's unemployed youths is a sustained cost that does not decline but may indeed increase as frustration of youths mounts and cumulates into personal deterioration that after some time becomes irreversible.

The present section attempts an initial cut on social problems that are unemployment-associated or appear to be so associated. Much research on social costs associated with unemployment remains to be done. The data base is most deficient. Lacking are data that would permit international comparisons of:

- extra mortality among unemployed youths that is higher than expected rise in deaths
- juvenile crime rates, levels, and changes, by prior unemployment experience
- ratio of juvenile crime rates to adult crime rates
- incidence of venereal diseases among youths with and without jobs
- incidence of mental illness among youths with and without jobs
- numbers and percents of juvenile drug abusers
- percent of births out of wedlock of girls who were with and without jobs prior to birth of child.

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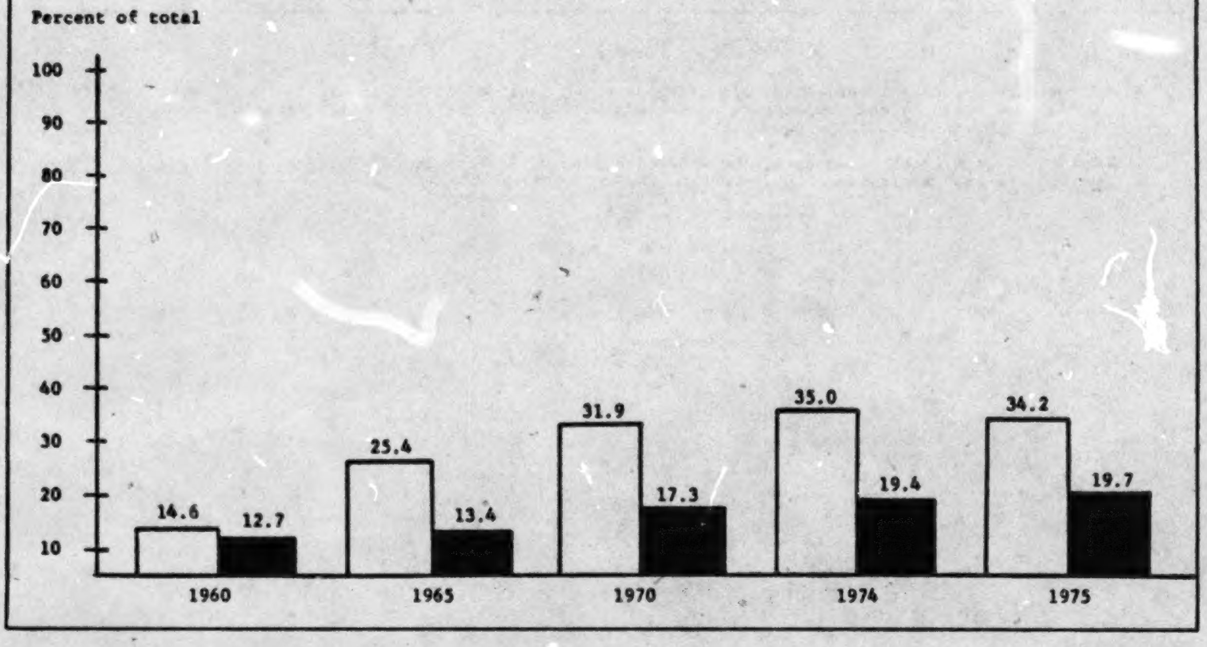
Since 1960 youth arrests have increased in the United States.

There has been a steady increase in the percent of youth arrests from 1960 to 1975. The increase in the total number of arrests reflects an increase in criminal activity and is more noticeable among the 13-19 year age group.

See Table 7.1

Chart 7.1

Youths Aged 13-24 Arrested as a Percent of All Arrests in the United States: 1960, 1965, 1970, 1974, 1975



☐ Ages 13-19

■ Ages 20-24

Source of Data: U.S. Department of Justice

Table 7.1.--Youths aged 13-24 arrested in the United States: 1960, 1965, 1970, 1974, 1975

Age	1960	1965	1970	1974	1975
13-19	596,579 1/	1,275,738	2,096,010	2,160,286	2,740,586
20-24	516,251	676,666	1,136,971	1,201,514	1,581,737
Total all ages	4,077,596	5,031,393	6,570,473	6,179,406	8,013,645
13-19 as percent of total arrests	14.6 1/	25.4	31.9	35.0	34.2
20-24 as percent of total arrests	12.7	13.4	17.3	19.4	19.7
13-24 as percent of total arrests	27.3 2/	38.8	49.2	54.4	53.9

1/ Ages 15-19.
2/ Ages 15-24.

NOTES.—Figures represent events for all offenses which include violent crimes (murder, rape, robbery, aggravated assault) and property crime (burglary, larceny, theft and motor vehicle theft).
FREQUENCY OF REPORTING: Annual.

SOURCE: U.S. Department of Justice, The Federal Bureau of Investigation, Uniform Crime Reports for the United States, Washington, D.C., 1960, 1965, 1970, 1974, 1975.

The percent of youths found guilty of indictable offenses in England and Wales has risen since 1969.

The rise since 1969 in the percent of youths found guilty of indictable offenses has been, although gradual, steady. The percentage increase for 14-20 year old females found guilty of an indictable offense was 1 percentage point less than the rise for the 14-20 year old males.

Table 7.2

Persons Found Guilty of Indictable Offenses in England and Wales: 1969, 1972, 1975

	1969	1972	1975
Males			
All ages	264,[illegible]75	293,414	342,125
14-20	108,681	124,843	150,764
14-20 as percent of total males	41.1%	42.5%	44.1%
Females			
All ages	39,595	46,621	60,356
14-20	11,393	13,424	18,388
14-20 as percent of total females	28.8%	28.8%	30.5%

NOTES.—Included in the category of indictable offenses are: sexual offenses, burglary and robbery, theft, handling of stolen goods and fraud.
FREQUENCY OF REPORTING: Annual.

SOURCE: British Government Statistical Service, Social Trends, London, 1969, 1972, 1975.

For most drugs, the relation between their use and education for young men in the United States is not strong.

Young men who were college graduates were less likely to have used cigarettes in 1974-75 than young men with less education. For other drugs, there was little difference in either current or lifetime drug use by level of education, although in no cases were college graduates more frequent users. Differences between blacks and whites were small and varied with the drug.

Table 7.3A

Current Drug Use 1/ Among Young Men by Level of Education in the United States: 1974-75

(Percentages)

Drug		Total	Education			
			Less than high school	High school graduate	Some college	College graduate
	Number of respondents	(2,510)	(394)	(933)	(713)	(470)
Cigarettes		60%	81%	65%	54%	38%
Alcohol		92	87	93	93	91
Marijuana 2/		38	39	35	44	34
Psychedelics		7	7	7	10	5
Stimulants		12	11	13	14	8
Sedatives		9	10	9	9	8
Heroin		2	5	2	1	-- 4/
Opiates 3/		10	10	11	10	9
Cocaine		7	7	6	10	4

Table 7.3B

Lifetime Drug Use 5/ Among Young Men by Education and Race in the United States: 1974-75

(Percentages)

Drug	Total 6/ (2,510)	White					Black				
		Total (2,103)	Less than high school (263)	High school Graduate (785)	Some college (617)	College graduate (438)	Total (303)	Less than high school (95)	High school graduate (114)	Some college (72)	College graduate (22)
Tobacco	88%	88%	94%	92%	85%	83%	87%	88%	89%	86%	77%
Alcohol	97	97	96	98	97	98	94	93	96	97	77
Marihuana 2/	55	54	51	52	60	51	65	61	64	75	50
Psychedelics	22	22	23	21	27	13	25	17	25	33	32
Stimulants	27	28	29	26	32	25	25	18	28	32	18
Sedatives	20	20	21	18	23	18	24	18	24	33	18
Heroin	6	5	9	6	5	1	14	17	12	15	5
Opiates 3/	31	31	34	31	33	26	34	23	37	43	32
Cocaine	14	13	16	11	16	8	24	20	25	33	9

1/ Current drug use is defined as any use of the drug in 1974-75 (the time of the interview), including experimental use within this period.
2/ Includes use of marihuana, hashish and hashish oil. Does not include THC which is counted as a psychedelic.
3/ Except heroin and cocaine.
4/ Less than half of one percent.
5/ Lifetime drug use is defined as any use of the drug during a person's lifetime.
6/ This column includes the 104 men who classified themselves as Puerto Rican, Oriental, American Indian, or Other.

NOTES.—The last year of school completed serves as the measure of education.

Data were taken from a report on a study sponsored by the National Institute of Drug Abuse and the Special Action Office for Drug Abuse Prevention of the non-medical use of psychoactive drugs among young men in the United States. The data were collected from October 1974 to May 1975 by interviews with 2,510 men. The sample was selected by standard sampling procedures to be representative of all men in the general population who were 20 to 30 years old, inclusively, in 1974. The sample may be regarded as consisting of 11 birth cohorts, with the year of birth ranging from 1944 to 1954.

FREQUENCY OF REPORTING: One-time study.

SOURCE: National Institute of Drug Abuse, Young Men and Drugs - A Nationwide Survey, Research Monograph Series 5, Rockville, Maryland, 1976.

Unemployed young men in the United States were more likely to have used drugs than employed young men or students.

In 1974-75, lifetime drug use by men aged 20 to 30 was more likely among the unemployed for all drugs except alcohol. Those working part-time also had higher drug use than the full-time employed. Students were slightly more likely to have been drug users. The relationship between employment status and drug use was true for both blacks and whites. No conclusion is possible from other studies on the direction of cause and effect between drug use and unemployment.

Table 7.4

Lifetime Use 1/ of Drugs by Current Employment Status Among Young Men in the United States: 1974-75

(Percentages)

Drug	Total	Working 30 or more hours per week	Students, except for those working 30 hours or more	Working less than 30 hours	Unemployed
Number of respondents	(2,510)	(1,980)	(282)	(35)	(213)
Tobacco	88	88	84	77	92
Alcohol	97	97	96	97	96
Marijuana 2/	55	52	62	74	72
Psychedelics	22	19	27	70	41
Stimulants	27	25	30	37	41
Sedatives	20	18	22	23	35
Heroin	6	5	6	6	18
Opiates 3/	31	30	31	31	44
Cocaine	14	12	17	29	31

1/ Lifetime use is defined as any use of the drug during a person's lifetime.

2/ Includes use of marihuana, hashish and hashish oil. Does not include THC which is counted in this study as a psychedelic.

3/ Except heroin and cocaine.

NOTES.—Employment groups are defined as of the date of the interview.

Data were taken from a report on a study sponsored by the National Institute of Drug Abuse and the Special Action Office for Drug Abuse Prevention of the non-medical use of psychoactive drugs among young men in the United States. The data were collected from October 1974 to May 1975 by interviews with 2,510 men. The sample was selected by standard sampling procedures to be representative of all men in the general population who were 20 to 30 years old, inclusively, in 1974. The sample may be regarded as consisting of 11 birth cohorts with the year of birth ranging from 1944 to 1954.

FREQUENCY OF REPORTING: One-time study.

SOURCE: National Institute of Drug Abuse, Young Men and Drugs - A Nationwide Survey, Research Monograph Series 5, Rockville, Maryland, 1976.

The number of young people who have used marijuana and psychotherapeutic drugs has increased in recent years.

From 1972 to 1975-76, the proportion of teenagers and young adults who have experienced marijuana rose substantially, especially from 1972 to 1974, and especially for teenagers and adults aged 26-34. The largest user group is 18-25 year olds, over half of whom had used marijuana in 1975-76. Psychotherapeutic drugs were less frequently used.

This table also shows that use of these drugs was higher among college students and lower among those with less than a high school education.

Table 7.5

Percent of Youths and Percent of Adults Experiencing Selected Drugs in the United States: 1972, 1974, 1976

	Marijuana			Psychotherapeutic drugs		
	1972	1974	1975/76	1972	1974	1975/76
All youths age 12-17	14%	23%	22%	6%	7%	8%
12-13	4	6	6	2	1	6
14-15	10	22	21	5	8	7
16-17	29	39	40	11	11	10
All adults age 18+	16	19	21	10	7	11
18-25	48	53	53	20	21	22
26-34	20	29	36	11	11	14
35+	3	4	6	7	2	7
Adult age 18+ by education:						
Not high school graduate	5	9	12	6	4	8
High school graduate	13	20	22	10	7	10
College	32	27	30	16	11	16
Not a graduate	NA	31	30	NA	12	18
Graduate	NA	23	30	NA	9	14
Now a college student	NA	61	48	NA	27	20

NOTES.—Data are based on a study sponsored by the National Institute on Drug Abuse. Personal face to face interviews were conducted during the period January through April 1976. Altogether, 2,590 adults and 986 young people were interviewed.

Psychotherapeutic drugs include any sedatives, tranquilizers and stimulants sold over-the-counter or by prescription.

Drug experience includes any previous or current use of the specified drugs for non-medical reasons.

FREQUENCY OF REPORTING: One-time study.

SOURCE: Response Analysis Corporation, Non-Medical Use of Psychoactive Substances, Princeton, 1976.

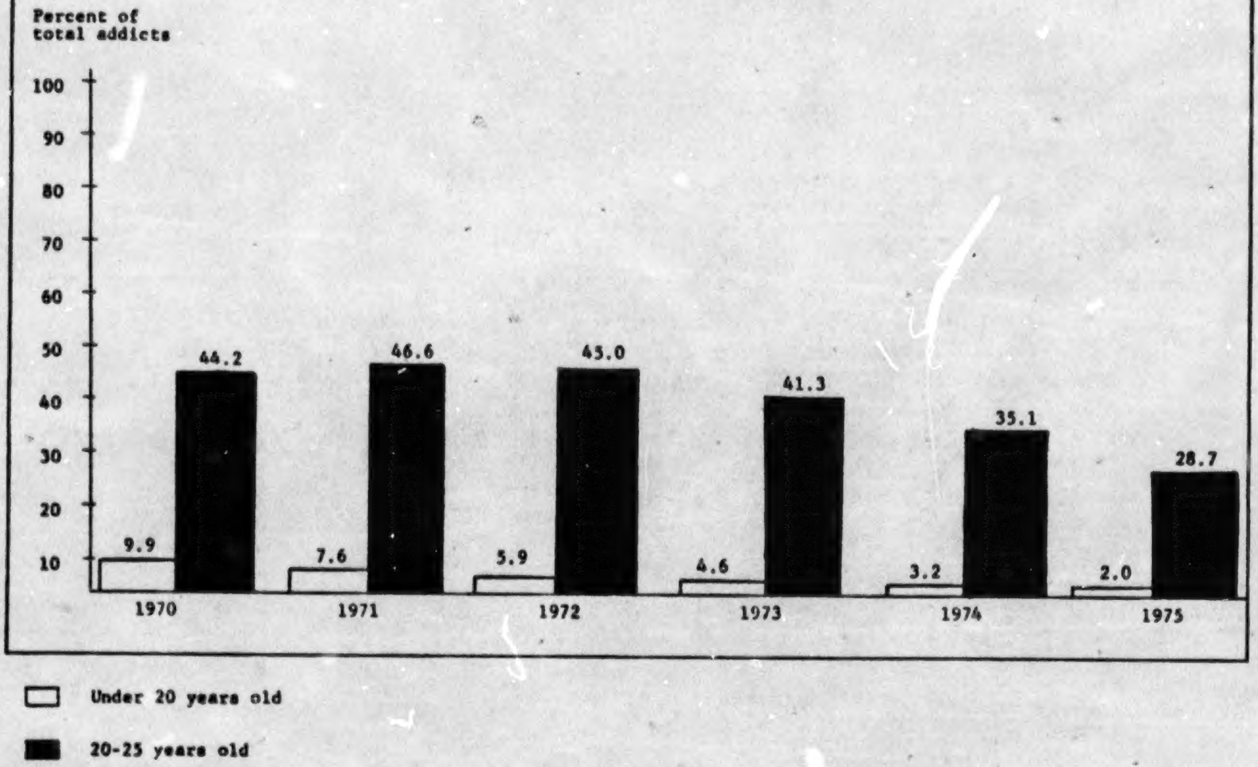
Youth drug addiction in the United Kingdom has been declining since 1970.

According to the British Government Statistical Service, the proportion of registered drug addicts in the United Kingdom who are 25 years of age or under, has been steadily declining since 1970. However, it appears that the decline in hard drug use has been offset by an increase in alcohol use among young people. Mr. Eric Deakins, MP, Parliamentary Secretary for Health and Social Security, warned that "the number of people under 25 admitted to mental illness hospital or to alcoholism units with a diagnosis of alcoholic psychosis or alcoholism rose from about 140 in 1964 to about 430 in 1975." It was also noted that the number of convictions of people under 21 for offenses of drunkeness more than doubled between 1964 and 1975 from about 9,000 to over 20,000.

See Table 7.6

Chart 7.6

Registered Addicts of Dangerous Drugs in the United Kingdom by Age Group: 1970-75



Source of Data: British Government Statistical Service

Table 7.6.--Registered addicts of dangerous drugs in the United Kingdom: 1970-75

	1970	1971	1972	1973	1974	1975
Number registered as taking drugs on December 31	1,426	1,549	1,615	1,815	1,972	1,954
Males	1,051	1,133	1,194	1,369	1,459	1,438
Females	375	416	421	446	513	516
Age distribution						
Under 20 years	142	118	96	84	64	39
20-25 years	631	722	727	750	692	561
Percent of total addicts						
Under 20 years	9.9%	7.6%	5.9%	4.6%	3.2%	2.0%
20-25 years	44.2	46.6	45.0	41.3	35.1	28.7

NOTES.—Included in the drug addict category are users of all drugs, including methadone, heroin, morphine, pethidine and cocaine. FREQUENCY OF REPORTING: Annual.

SOURCE: British Government Statistical Service, Social Trends, London, 1975.

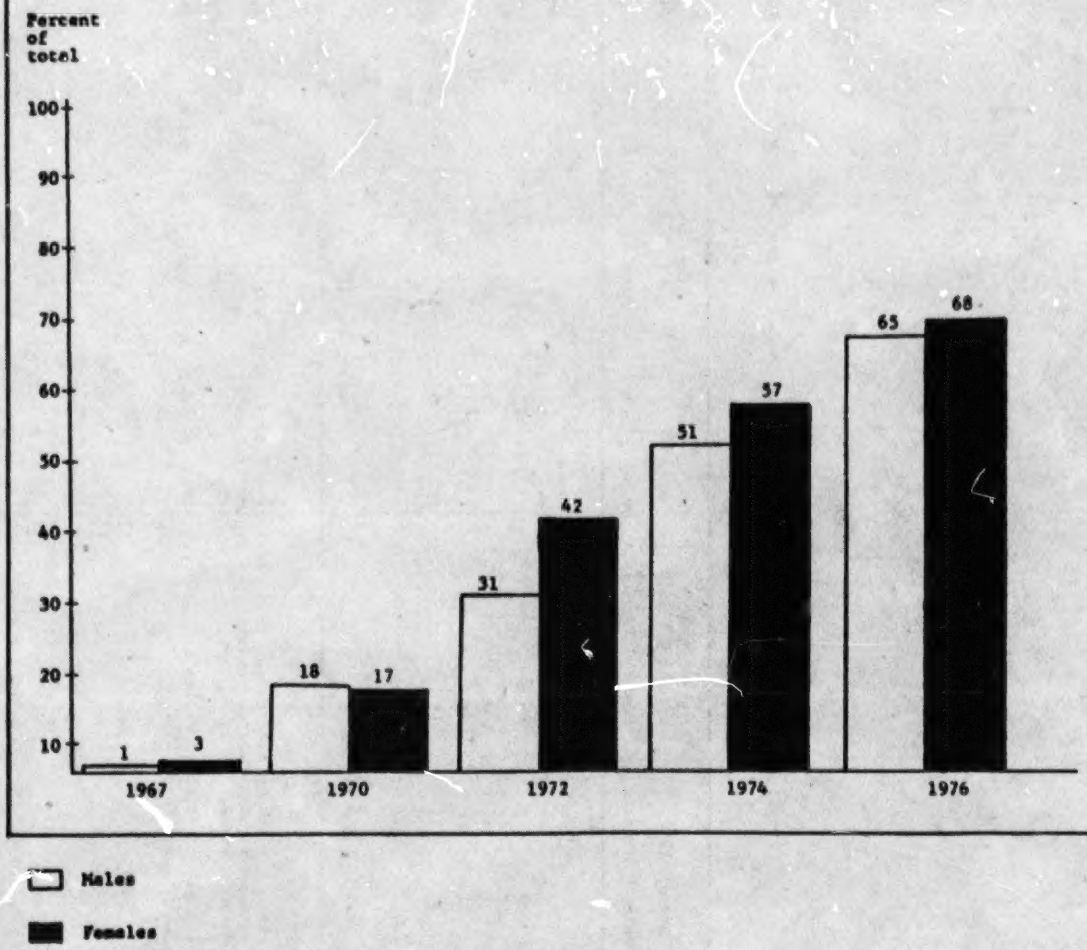
Since 1967 illicit drug use among youth in Canada has grown significantly.

Statistics on drug users in Canada indicate that young people, both men and women, constitute a rising proportion of all new users of illicit narcotics (although in the most recent period, their absolute numbers declined). While people aged 16-24 accounted for 66 percent of all new users in 1976, they accounted for 36 percent of all users, new and old.

See Table 7.7

Chart 7.7

Illicit Narcotic Drug Use in Canada of 16-24 Year Olds: 1967, 1970, 1972, 1974, 1976



Source of Data: Canadian Department of National Health and Welfare

Table 7.7.--Illicit narcotic drug users in Canada by year of first use, age and sex: 1967-76

	Before 1967		First used in 1967		First used in 1970		First used in 1972		First used in 1974		New users in 1976		Total, all years 1967-76	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
Age														
15 and under	1	--	--	--	--	--	--	--	--	--	19	4	22	4
16-17	3	--	--	--	--	--	--	--	11	1	134	24	174	35
18-19	--	--	--	--	1	--	5	6	88	25	208	51	475	116
20-24	6	--	3	3	176	42	516	233	579	216	505	161	3,304	1,275
25 and over	986	328	223	86	745	178	954	260	534	154	384	91	6,754	1,887
Unknown	35	11	18	7	71	33	182	65	110	26	61	16	921	297
Total	1,031	339	244	96	993	253	1,657	564	1,322	422	1,311	347	11,650	3,614
16-24 as percent of total	-- 1/	-- 1/	1%	3%	18%	17%	31%	42%	51%	37%	65%	68%	34%	39%

1/ Less than one percent.

NOTES.—All recorded cases pertain to persons who used drugs from illicit sources (non-medical). Data are based on the illicit use of narcotics such as heroin, opiates, cocaine and synthetics.
FREQUENCY OF REPORTING: Annual.

SOURCE: Canadian Department of National Health and Welfare, Bureau of Dangerous Drugs, Health Protection Branch, Drug Use and Conviction Statistics, Ottawa, 1976.

The teenage birth rate declined in most countries selected, from 1966 to 1973.

Except for France and Italy, the number of births per 1,000 females aged 15-19 declined or held constant from 1966 to 1973. The largest decline--38.0 percent--occurred in Sweden. The United States experienced a 16.8 percent decline, but remained at the highest level.

The decrease of teenage birth rates in these countries may be attributable to increased availability of birth control information.

Table 7.8

Number of Births Per 1,000 Females Aged 15-19
in Selected OECD Countries: 1966, 1973

Country	1966	1973	Percentage increase or decrease
Australia 1/	49.0%	49.0%	0.0
Canada 2/	46.8	36.5	-22.0%
France 3/4/	26.7	29.0	8.6
Germany 4/	34.0	27.2	-20.0
Italy	40.3	46.8 5/	16.1
Norway 4/	42.3 6/	42.5 7/	0.5
Sweden	50.2	31.1	-38.0
United Kingdom 8/	47.5	43.9	- 7.6
United States	71.5	59.5 7/	-16.8

1/ Excluding full blood aborigines estimated at 49,036 in June 1966.

2/ Excluding data for Newfoundland. Including Canadian residents temporarily in the United States, but excluding United States residents temporarily in Canada.

3/ Including births among armed forces outside the country.

4/ Age classification based on difference between year of birth of mother and year of birth of child.

5/ 1972 data.

6/ Data for 1967.

7/ Data for 1974.

8/ England and Wales only.

SOURCE: Adolescent fertility rates for all countries except the United States: United Nations Department of Economic and Social Affairs, Demographic Yearbook, New York.
United States: U.S. Department of Health, Education, and Welfare, National Center for Health Statistics, Vital Statistics of the United States, Washington, D.C.

Teenage mothers lack key skills to compete successfully with their contemporaries.

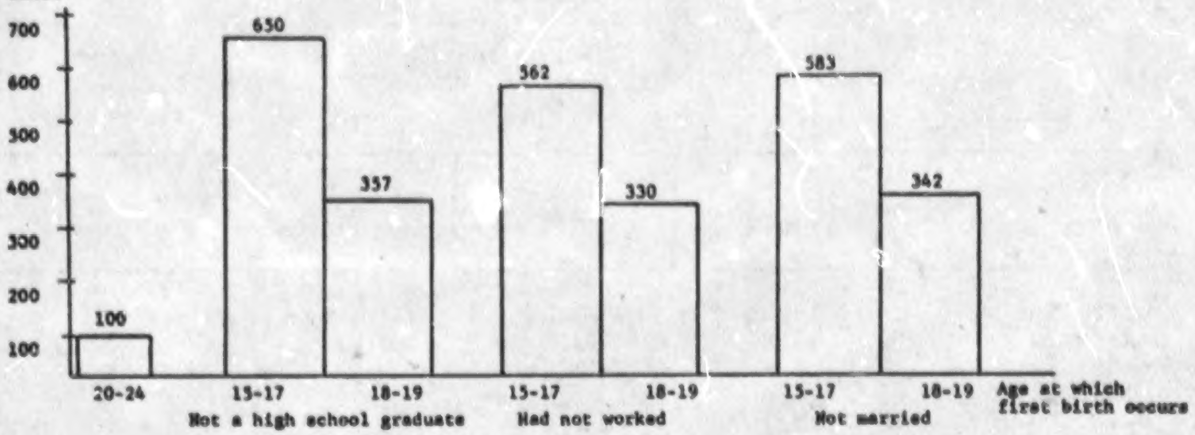
Teenage mothers, especially those under age 18, are likely to begin childbearing without having the opportunity to acquire necessary skills to compete successfully with their contemporaries who postpone having a child until their early 20's. One New York study conducted in 1973 of mothers found that 85 percent of those who bore their first child between the ages 15-17 did not complete high school. This is 6-1/2 times the proportion of non-graduates among women who became mothers in their early 20's. 79 percent had no job experience--six times the proportion of 20-24 year olds. Those who first gave birth at ages 18 and 19 also were disadvantaged compared to the older mothers.

See Table 7.9

Chart 7.9

Risk of Not Completing High School, Not Working Nor Marrying Before Birth of First Child, By Age At Which First Birth Occurs in New York City: 1973

(Risk in each category among women who became mothers, 20-24 = 100)



Source of Data: The Alan Guttmacher Institute

Table 7.9.--Percent of young mothers who are not high school graduates, not working and not married in New York City: 1973

Age at first birth	Percent not high school graduates	Percent had not worked in last 6 months	Percent not married
15-17	84.5%	79.3%	79.3%
18-19	53.5	46.5	46.5
20-24	13.0	14.1	13.6

NOTES.—The Alan Guttmacher Institute compiled the above data from H. B. Presser, University of Maryland, unpublished tabulations from a study of first births in New York City, 1973.
FREQUENCY OF REPORTING: One-time study.

SOURCE: The Alan Guttmacher Institute, 11 Million Teenagers, What Can Be Done About the Epidemic of Adolescent Pregnancies in the United States, New York, 1976.

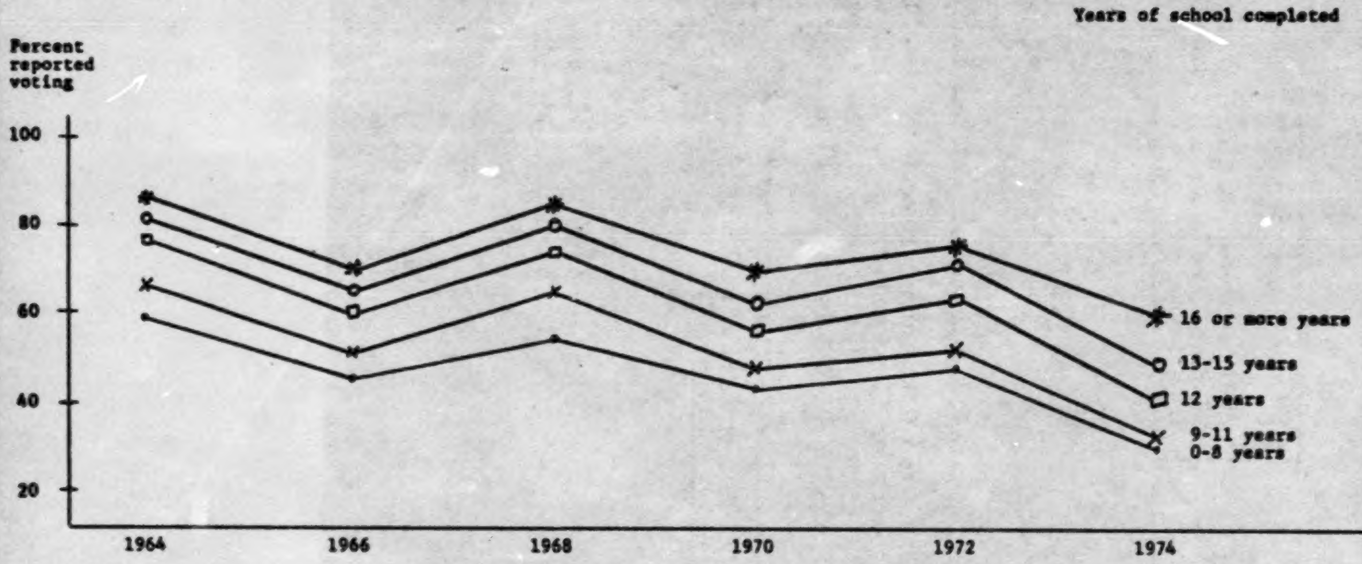
Persons with higher educational attainment are more likely to vote in the United States.

In the United States, reported voter participation is higher for persons with greater educational attainment. Although the chart displays a trend toward declining voter participation over time, especially at off-year elections, for all educational levels, the effect of education on voter participation remained constant from year to year.

See Table 7.10

Chart 7.10

Voter Participation Rate in the United States by Level of Education: 1964-74



Source of Data: U.S. Department of Health, Education, and Welfare

Table 7.10.--Voter participation rate in the United States by level of education: 1964-74

Years of school completed	Percent of population group reported voting in:					
	1964	1966	1968	1970	1972	1974
0 to 8 years	59.0	44.6	53.4	43.4	47.4	34.4
9 to 11 years	65.4	49.9	64.2	47.1	52.0	35.9
12 years	76.1	60.1	75.5	58.4	65.4	44.7
13 to 15 years	82.1	64.8	81.2	61.3	74.9	49.6
16 or more years	87.5	70.2	85.0	70.2	78.8	61.3

NOTES.—Voter participation provides an indicator of direct participation in the political process.

FREQUENCY OF REPORTING: Annual.

SOURCE: U.S. Department of Health, Education, and Welfare, National Center for Education Statistics, The Condition of Education, Vol. 3, Part 1, Washington, D.C., 1977.